

REVIEWING THE NATIONAL BROADBAND PLAN

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

APRIL 14, 2010

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ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

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REVIEWING THE NATIONAL BROADBAND PLAN

WEDNESDAY, APRIL 14, 2010

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:34 p.m. in room SR-253, Russell Senate Office Building, Hon. John D. Rockefeller IV, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV, U.S. SENATOR FROM WEST VIRGINIA

The CHAIRMAN. This hearing will come to order.

We welcome all of our guests, most particularly Julius Genachowski, who is Chairman of the Federal Communications Commission, which is a seminal job in Washington, D.C.

Broadband is more than a technology. It is a platform for social and economic opportunity. With broadband networks, we can change the way we approach job creation, education, health care, entertainment, and other things. We can change the way we connect with our communities around the world.

That is why I fought last year to make sure that the Recovery Act included programs designed to bring broadband to everybody in this country no matter who they are, and no matter where they live. It is an operating principal.

The Recovery Act included two major initiatives: one, a grant program to spur the adoption and deployment of broadband; and two, a broadband plan for the Nation developed by the FCC.

It is the broadband plan that we are here to discuss today. That is why we are here: who gets what when, for how long, all of that.

The FCC released the National Broadband Plan last month, and like many of my colleagues, I joined the chorus singing praises for this effort. I think the document is a great start, but I have concerns, real concerns.

Back in October when we held a hearing to discuss the broadband grant programs, I spoke about the prospects for the broadband plan. I said I wanted to see concrete action on the day that the plan is delivered because I believe we need real broadband solutions for real people. And we need them now. A mere menu of options for the FCC and the Congress with far-off time frames are, to this Senator, not good enough. I believed that in October and I believe it now.

The report has over 200 recommendations, but it takes no action and suggests no action. It is long on vision, but it is short on tac-

tics. So I am going to challenge the FCC. I am going to challenge the FCC to make the hard choices—for them as a commission to make the hard choices within, regardless of anything else going on, that will help bring broadband to every corner of our country.

I mentioned to the Chairman outside that I have spent much of the last week at a mine disaster in a rural part of West Virginia. Amongst all of the horrible things that come out of an experience like that, one of the most disturbing was the fact that not one person there—not the rescue people trying to get inside, mine officials, miners' families, and most importantly, trying to call people in Detroit or Akron or wherever they might be—could not do that. There is no cell phone service in that part of the State, and it is not even the most rural part of the State. That made me angry.

Putting ideas on paper is just not enough. Just seeking comment on a slew of issues is not enough. To me, 10 years after 9/11, it is action that counts. Let me tell you why.

In West Virginia, one in five households lacks access to broadband service. As this plan notes, only 71 percent of the State's population has access to 3G wireless service. Every day that goes by, communities without broadband in West Virginia—and every other State in the country, because there is no State that does not have remote and rural parts to it—risks falling father behind.

In this new century, universal broadband service is the promise of a fair shot at economic opportunity. It really is just exactly that. It is the promise of educational equality and affordable health care, and it opens the door for everyone to participate in our democratic dialogue, where people can talk with each other, and hopefully do so with dignity, no matter who you are or where you live. Income, geography, nothing has anything to do with this.

Before I conclude my remarks, let me take a minute to mention last week's disheartening decision by the Circuit Court of Appeals of the District of Columbia. No doubt, the messy situation that *Comcast* has so generously put us in adds to the complexity of your task, Mr. Chairman. No question about it. But for me, two things are clear.

First, in the near term, I want the agency to use all of its existing authority. I do not care how many lawyers you have or do not have. I want you to exercise the authority that you do have. *Comcast* and others want to take that away. They love deregulation so much, they just cannot even express it. And there are a lot of other folks sitting out there who represent companies that feel the same way, but at least they did not take it to court. Now that it has been taken to court and now that it has been shot down, it puts the whole National Broadband Plan at risk, and the Chairman of the FCC ought to be pretty upset about that. I know I am.

And second, in the long-term, if there is a need to rewrite the law to provide consumers and the FCC and industry with a new framework, I, as Chairman, will take that task on. That is the option where I think we are probably going to end.

A lot of people sitting in this room represent companies who love deregulation and will do anything to get out of anything to do with government. We have had a history in the recent FCC of a lot of non-action on issues where action was needed. I just want to say, Mr. Chairman, to you that this is a committee, at least so long as

I am Chairman, that is here to protect people, to protect consumers. Most of the rest of the world can take care of itself. Consumers cannot. People without cell phone service cannot make that phone call to the mother of a deceased miner. They cannot do it. So that is the way I look at my responsibilities here, and I think a lot of us feel that way.

So in closing, I appreciate the challenges before the FCC. I understand they are much more complicated now. Do not let that discourage you at all. Bend the curve if you have to.

I look forward to the Chairman's testimony about how he is going to move ahead and how we are all going to do it, in fact, together and bring the wonders of broadband to every community in this country. That has to be the end result.

I call upon the distinguished Ranking Member from Texas.

**STATEMENT OF HON. KAY BAILEY HUTCHISON,
U.S. SENATOR FROM TEXAS**

Senator HUTCHISON. Thank you, Mr. Chairman.

Mr. Chairman, first, I want to extend my support for what I know is, for every one of us, a concern about that horrible disaster that happened in your State. And I know that your being there was very comforting for the victims' families, but also I know that it was probably very difficult personally to meet with people who had experienced such a loss. So, each of us relate to what you have done and said, and we hope that there can be mine safety measures that will protect the people who work in those mines in the future.

I do want to also address the broadband issue, which of course is the subject of this hearing, but there is no question that we are also going to discuss the recent court decision that is going to have a huge impact on, I think, Internet survivability for the future.

Let me first say that there are some good parts of the broadband plan that the Commission has brought to us today, and certainly the series of recommendations on the reform of the Universal Service Fund is good because it provides support for low-income Americans to have access to telecommunications capabilities, and lowers the cost of building infrastructure in rural areas.

I also think the focus that the Commission has on making sure that anchor institutions such as libraries, schools, universities, and hospitals have priority access to broadband is also very key.

I believe, however, that there are concerns raised in this report. I will start with the effort to encourage broadcasters to voluntarily give back some of their spectrum.

We have just completed a digital television transition. It was very time-consuming and expensive for broadcasters, but we have gotten through it. Some of the spectrum that broadcasters had was reclaimed from broadcasters. So asking them to give back more I think is probably unfair.

But, what concerns me even more is the agency's reference to involuntary measures that might require more from the broadcasters after they have already gone through a very expensive transition in compliance with the requirements of Congress. So, I know many of us will be monitoring the Commission's activities in this area very

closely, and I hope that there will not be a heavy hand of government pushing involuntary give-back requirements.

Further, I am disappointed that there are not enough incentives for private investment, such as the measures I suggested in a bill that I introduced last year. Such incentives would provide a truly voluntary, incentive for broadcasters and traditional communications companies to invest in underserved or rural areas. And I think that would allow these providers to be creative and innovative and have an incentive to do it.

My bill also would provide a review of the large number of Federal programs that support broadband to see if we can streamline some of them, and that too was not adequately addressed in your report. So, I think taking some of the broadband that is available, using it in a better way, and providing investment incentives should be a part of any plan going forward in the future.

The really big concern, however, that I want to address is the FCC's growing regulatory posture. You have just heard the other side of the argument from the Chairman, and I am very concerned that the Commission is going to overstep its Congressional authority and by means of, "bending the curve," perhaps to do it.

I think that if you look at the history of the really soft regulatory touch that we have had on the Internet, that has been very positive. It has promoted innovation, and we have seen really a good consumer outcome, more consumer choices at a better price because we have opened the doors rather than having the heavy hand of regulation that would begin to restrict private companies that build and maintain a core communications network, and to be able to manage their own facilities.

I am concerned that there are more and more calls for the heavy footprint even though we have seen the success of a light footprint, which is or has been the FCC's policy starting in about 2002.

Now we have the *Comcast* case, which I think *Comcast* certainly had the right to appeal that the FCC did not have the Congressional authority in the law to say that they could not manage their own networks. And the court ruled in *Comcast's* favor.

Now we hear that there is an effort to go into the broadband area and really go back to the old kind of regulation that I think is going to stifle the evolution that we have seen in the Internet. Companies that did not exist 10 years ago are now titans of the industry, and I think that we have seen the good effects of that soft touch in promoting innovation and growth.

The proclamations last week that the court decision left the broadband market without any consumer protection capability ignore the fact that the most robust consumer protection agency in this country, the Federal Trade Commission, has enforcement jurisdiction. Ironically, this jurisdiction was conveyed to the FTC when the FCC removed the common carrier regime from these technologies and would be eliminated if the FCC reverses that decision and I think, thereby, would harm the consumers by reducing their available protections.

In my judgment, if the FCC were to take the action that Chairman Genachowski and his colleagues appear to be considering, reclassifying broadband as a common carrier service, and if it does so without a directive from Congress and a thorough analysis of

the facts and the potential consequences to investment, the legitimacy of the agency would be seriously compromised.

I hope, and I am asking you today, to step back and consider the consequences of such a decision and whether there are alternatives where we can work together to clarify the authority of the FCC while preserving the environment that encourages investment and creativity, which is the unique quality of American technology. I hope that we can find the common ground.

As the Chairman has said, he is willing to dive into this if he believes that you do not have the statutory authority or are not able to get it. This will be a vigorous debate, Mr. Chairman, and I look forward to having it. I hope that we can do something in a way that will achieve the goal that I think all of us have, which is more choices at a better price for consumers, and also make sure that we do not stifle innovation.

Thank you, Mr. Chairman.

[The prepared statement of Senator Hutchison follows:]

PREPARED STATEMENT BY KAY BAILEY HUTCHISON, U.S. SENATOR FROM TEXAS

Mr. Chairman, thank you for holding this important and timely hearing on the Federal Communications Commission's recently completed National Broadband Plan. In light of the decision by the U.S. Court of Appeals for the D.C. Circuit last week, I would have preferred to have all five of the FCC Commissioners appear before us, but I do welcome Chairman Genachowski back today.

At the outset, let me complement the Chairman, his staff, and the dozens of volunteers that worked for a year to conduct hearings, seek robust public input, and to analyze an extraordinary amount of information.

We will likely spend time today discussing the court's decision, its impact on the broadband plan, and the idea of network neutrality regulations. But, before turning to those matters, I want to note that there are a number of positive provisions in the plan that we can work together on in a bipartisan way, here and at the Commission.

For example, the Commission has made a series of recommendations to reform the Universal Service Fund that provides support for low income Americans to access telecommunication capabilities and provides support to lower the cost of building infrastructure in rural areas. Without reform, the program is not sustainable in this emerging communications environment.

I am also pleased that the Commission focuses heavily on making sure that anchor institutions in our communities like schools, universities, hospitals, and libraries have access to very robust broadband services.

However, I also have concerns with some of the plans' recommendations.

While I commend the Commission for focusing on the need that we have to identify additional spectrum, I have concerns with the Commission's focus on spectrum used by broadcasters to provide free over-the-air television to millions of households.

We just completed the digital television transition where some spectrum was already reclaimed from broadcasters. Although the immediate focus of the Commission will be on "voluntary" give backs of spectrum by broadcasters, the agency has reserved the right to move to "involuntary" measures. This is extraordinarily disturbing, and I will be monitoring the Commission's activities in this area very closely.

Further, I am disappointed that the plan does not offer ideas to encourage direct private investment in new infrastructure in unserved areas.

Last year I introduced the Connecting America Act, which would provide investment tax credits to providers that undertake investment in unserved areas or that make substantial commitments to upgrade their existing networks, regardless of the technology they use. My bill would also provide a review of the large number of Federal programs that support broadband to determine if we can streamline them and make the money work more effectively, or provide a single application point.

I hope that Chairman Genachowski and his team will take another look at ways to stimulate direct private investment in our unserved areas. It is clear that we do not have the public funds to tackle this problem.

The really big concerns with the plan and the FCC's growing regulatory posture:

While I have some concerns about the plan itself, I am much more concerned by the aggressive regulatory posture being conveyed by the Commission.

Investment began to truly flourish in broadband technology when the Commission made a decision in 2002 to remove advanced communications technologies from the suffocating embrace of common carrier regulation, a nineteenth century way of looking at and regulating commercial activities. In the years that followed, companies invested tens of billions of dollars in infrastructure and we witnessed a continuing convergence between technologies and more choices for consumers.

Starting just a few years after the FCC adopted this light touch regulatory approach, however, we began to hear calls for a larger regulatory footprint that restricts how private companies that build and maintain the core communications networks manage their facilities. We first heard of “net neutrality” back in 2006, when the issue arose during this committee’s last effort at comprehensive reform.

We rejected calls to intervene into the Internet arena then, and have consistently decided not to pass legislation. Yet, the calls to regulate this technology area persist! In 2007, those calls resulted in a decision by the FCC to cite *Comcast* for a violation of the agency’s open Internet principles, the first sign that the Commission would actively seek to impose restrictions on how companies manage their networks.

While *Comcast* challenged the Commission’s authority to regulate broadband in court, Chairman Genachowski started a rulemaking to adopt the open Internet principles set down 5 years ago as rules. I cautioned him last Fall that the case for regulation has not been made, and new rules will likely result in uncertainty and threaten investment.

Mr. Chairman, that’s the history of the “net neutrality” discussion, which has renewed focus because last week by the Court of Appeals for the D.C. Circuit ruled against the Commission and held that the authority cited by the FCC to justify its holding against *Comcast* was not sufficient to justify the Commission’s actions in that case.

In the wake of the court’s decision, the regulatory chorus has grown louder still. Claims have been made that the court decision leaves consumers without protections and the agency with no authority to implement the national broadband plan, or to promote an open Internet.

The remedy suggested by a number of parties is to risk the vitality of the broadband market by reemploying the outdated common carrier regulatory framework that the Commission reasoned just 8 years ago would stifle the evolution of the Internet.

This rather remarkable suggestion served as a reminder that throughout the entire net neutrality debate the two most important things, reason and facts, have been in short supply. If we are going to have a discussion going forward about the proper framework for oversight of the broadband market, both must guide our way.

I begin with the view that the Internet as an open platform for innovation is a reality, not an aspiration. Companies that did not exist 10 years ago have emerged as titans of industry based almost entirely on the Internet as a means to reach consumers.

The argument that we need to promote an open Internet seems to both presume openness is threatened and that existing authorities and protections are unable to address that threat. Neither appears to be objectively true, and regulators have failed to demonstrate that there is an exigency requiring additional government involvement.

I asked Chairman Genachowski last October to provide the Committee with the number of alleged violations of the Commission’s “open Internet” principles under investigation, or that were the basis of prior Commission enforcement action, in part to inform our discussion about whether there is an exigency. Regrettably, the letter I received back contained none of the information I asked for.

The net neutrality discussion has also lacked analysis of existing authorities and protections to determine the role they may play in preserving the openness of the Internet. For example, are the Nation’s anti-trust laws and the agencies that enforce them unable to address the possibility that a company that owns both content and the means to distribute it may favor its own content over that of a competition?

And the proclamations last week that the court’s decision left the broadband market without any consumer protection capability completely ignore the fact that the most robust consumer protection agency in this country, the Federal Trade Commission (FTC), has enforcement jurisdiction. Ironically, this jurisdiction was actually conveyed to the FTC when the FCC removed the common carrier regime from these technologies, and would be eliminated if the FCC reverses that decision, actually harming consumers by reducing their available protections.

We have had this discussion now for almost 4 years without facts and reason. This technology marketplace is far too important to the Nation's commercial health to be subjected to uninformed debate or reflexive regulatory actions.

In my judgment, if the FCC were to take the action Chairman Genachowski and his colleagues appear to be considering, reclassifying broadband as a common carrier service, and if it does so without a directive from Congress and a thorough analysis of the facts and the potential consequences to investment, the legitimacy of the agency would be seriously compromised.

I hope that we can take a step back to consider the consequences of such a decision and whether there are alternatives we can work together on to clarify the authority of the FCC while preserving an environment that encourages investment. I am confident we can find common ground, but that will not happen if the FCC takes this action.

Mr. Chairman, again, thank you for holding this important hearing. I am sure it will not be our last on this subject. I look forward to Chairman Genachowski's testimony.

The CHAIRMAN. Thank you very much, Senator.
And now Senator Ensign?

**STATEMENT OF HON. JOHN ENSIGN,
U.S. SENATOR FROM NEVADA**

Senator ENSIGN. Thank you, Mr. Chairman, and also thank you, Chairman Genachowski, for being here today.

The plan that you have put forth is an ambitious, thought-provoking document. It aims high and does not side-step the difficult politically charged issues. The dedication and tireless effort of the FCC staff is on display throughout the plan's 376 pages. Chairman Genachowski, you and your staff are to be commended for all of their hard work.

Despite all that effort, however, I am somewhat disappointed with how the plan has turned out. The plan begins by saying the Government should play a limited role in the broadband ecosystem, but then it follows up with dozens and dozens of recommendations to do exactly the opposite. As I learn more about the National Broadband Plan, I see a lot more Federal spending, a lot more FCC regulation, and a lot more Government involvement in broadband. There are billions of dollars for broadband subsidies, a brand new digital literacy corps, mandates for cable TV boxes and broadband digital labels, and the suggestion that heavy-handed regulations like net neutrality and unbundling are needed.

What I do not see are many recommendations to get the Government out of the way of one of our Nation's most innovative, successful, and competitive industries. The number of Americans who have broadband at home has grown from 8 million in 2000, to nearly 200 million last year. Even in the worst of times, the private sector and Wall Street continue to put money into deploying and improving our country's broadband networks. By the FCC's own data, broadband providers have invested well over \$100 billion in their own networks over the last 2 years, in spite of the recession. I simply do not see any signs of a gross market failure that might warrant the Government spending tens of billions of dollars to subsidize broadband, or using a heavier hand to regulate the marketplace.

And I am not the only one who can see the FCC's justification for all this intervention. *The Washington Post* editorial board

agrees with me, saying that, quote, “such an assessment is premature at best.”

Before it makes a single recommendation, the National Broadband Plan admits that “technology costs and consumer preferences are changing too quickly in a dynamic part of the economy to make accurate predictions.” That is a direct quote. And I completely agree with it. But then the plan spends the next 300-plus pages making predictions about technology costs and consumer preferences in order to justify its 200 or more recommendations.

While I do have concerns with many of the recommendations in the plan, I do not want to give the impression that there is nothing of value in the report. In particular, I applaud that the plan places so much importance on finding more spectrum for wireless broadband. Congress and the FCC need to develop a comprehensive, long-term spectrum policy, and the National Broadband Plan helps to start that critical dialogue.

I look forward to working with my colleagues and with the FCC in a bipartisan manner to engage all spectrum stakeholders to ensure America keeps pace with the coming mobile revolution.

The plan would also stop the Universal Service Fund from subsidizing multiple competitors, would reform intercarrier compensation, would increase spectrum flexibility, and has some interesting ideas on maximizing infrastructure utilization. I look forward to learning more about these recommendations and many others contained in the National Broadband Plan during this hearing and in the coming weeks and months.

And just one last comment on the *Comcast v. the FCC* decision. This clearly has had a major impact on the future of our country’s broadband policy. The D.C. Circuit correctly, in my view, upheld the view that the FCC does not have unfettered power to regulate the Internet, and I hope that the Commission will continue its successful light-touch approach, as was described by my colleague, Senator Hutchison, to the Internet and will now abandon what I believe was a misguided pursuit of net neutrality regulations.

I look forward to hearing from Chairman Genachowski on how he thinks the decision will affect other parts of the National Broadband plan.

And one last comment to you, Chairman Genachowski, is that Nevada is the most urbanized State in the country, and what that means is we have the most distance in our rural areas and probably, even though it might not affect a huge population, we have a lot of people out there that have tremendous places that do not have coverage. Having said that, I do believe that the private sector is more the answer than the Government in trying to reach those last parts of our population who are currently underserved. I think through the right incentives, that the private sector will more than meet the challenge.

I thank you, Chairman Rockefeller, for holding this hearing.

The CHAIRMAN. Thank you, Senator.

Mr. Chairman?

**STATEMENT OF HON. JULIUS GENACHOWSKI, CHAIRMAN,
FEDERAL COMMUNICATIONS COMMISSION**

Mr. GENACHOWSKI. Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, thank you for the opportunity to testify today on the National Broadband Plan.

The plan, as you know, stems from a Congressional directive that the FCC prepare a national broadband plan that, quote, "shall seek to ensure that all people of the United States have access to broadband capability," include a strategy for affordability and adoption of broadband communications, and also recommend ways that broadband can be harnessed to tackle important national purposes.

The plan addresses these Congressional requirements in a way that reflects a strong conviction that, as our Nation rebuilds its economy, broadband communications can and must serve as a foundation for long-term economic growth, ongoing investment, enduring job creation, and broad opportunity.

As a Nation, we have work to do to seize the vast opportunities of broadband. The status quo is not good enough to maintain our global competitiveness in this rapidly changing world. Millions of Americans continue to live in areas that have no broadband at all. Studies place the U.S. as low as 18th when it comes to important attributes of broadband adoption and speeds. Our records show that roughly 65 percent adoption in the U.S. compares to much higher percentages, over 90 percent, in other countries in Asia and Western Europe.

One study ranks the U.S. 6th out of 40 industrial countries in innovative competitiveness and 40th out of the 40 countries surveyed in the rate of change of innovative capacity. That is unacceptable.

Second, certain communities within the U.S. are lagging: rural Americans, low-income Americans, minorities, seniors, tribal communities, and Americans with disabilities. For these groups, adoption rates are much lower than 65 percent, which is itself not good enough.

Altogether, 93 million Americans are not connected to broadband at home, including 13 million children. And 14 million Americans do not have access to broadband where they live, even if they want it. Again, unacceptable.

Our FCC plan is a plan for action, a plan that is as strong as it is non-ideological and nonpartisan. The plan sets ambitious goals for the country, including access for every American to robust and affordable broadband service and to the skills to subscribe; broadband speed of at least 1 gigabit to at least one library, school, or other public anchor institution in every community in the country; affordable 100 megabits-per-second to 100 million households; world-leading mobile innovation with the fastest and most extensive wireless networks of any nation; access for every first responder to a nationwide interoperable broadband public safety network.

In addition to these and other goals, the plan lays out a robust, sensible, and efficient action plan for achieving them. It proposes a once-in-a-generation transformation of the Universal Service Fund from yesterday's technology to tomorrow's. It proposes recov-

ering and unleashing licensed and unlicensed spectrum so that we can lead the world in mobile. It proposes ways to cut red tape, lower the costs of private investment, and accelerate deployment of wired and wireless networks. It proposes initiatives to foster vibrant and competitive free markets and empower consumers. It proposes a road map to tackle vital inclusion challenges so that everyone everywhere can enjoy the benefits of broadband. And it proposes ways in which broadband can be deployed to help solve many of our Nation's major challenges, including education, health care, energy, and public safety.

On public safety, the plan lays out an action plan designed to finally deliver on the recommendations of the 9/11 Commission that we have interoperable communications for our first responders, and I am pleased that the Chair and Vice Chair of the 9/11 Commission, as well as other bipartisan members, have endorsed the plan that the National Broadband Plan lays out.

Against this backdrop, last week we announced a broadband action plan to implement the broadband plan. I would like to note that we started to act even before we did the plan. We adopted rules several months ago to give more flexibility to schools, to have schools under the E-Rate program be available for broadband, and we adopted rules to lower the cost of investment by speeding up tower siting for mobile broadband. So we have been acting already.

In the plan we released last week, which was an unprecedented step in both agency planning and transparency, we propose a more than robust schedule of issues to consider and actions to take in the period ahead.

Notwithstanding the decision last week in the *Comcast* case, I am confident that the Commission has the authority it needs to implement the broadband plan. Whatever flaws may have existed in the specific actions and reasoning before the court in that case, I believe that the Communications Act, as amended in 1996, enables the Commission to, for example, reform Universal Service to connect everyone to broadband communications, including in rural areas and Native American communities; take steps to ensure that we lead the world in mobile; promote competition and innovation on broadband networks; protect and empower all consumers of broadband communications; support robust use of broadband by small businesses to drive business expansion and job creation; and safeguard public safety and homeland security.

I believe it is vitally important that the Commission act on the broadband plan's road map to protect America's global competitiveness and help deliver the extraordinary benefits of broadband to all Americans. I believe this essential mission is completely consistent with the Communications Act, and I can assure the Committee that our actions will be rooted in sound legal foundation designed to promote investment, innovation, competition, and the interests of consumers.

I look forward to your questions and thank you.

[The prepared statement of Mr. Genachowski follows:]

PREPARED STATEMENT OF HON. JULIUS GENACHOWSKI, CHAIRMAN,
FEDERAL COMMUNICATIONS COMMISSION

Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, thank you for the opportunity to testify today on the National Broadband Plan.

The Plan, as you know, stems from a Congressional directive that the FCC prepare a “national broadband plan” that “shall seek to ensure that all people of the United States have access to broadband capability,” include a strategy for affordability and adoption of broadband communications, and also recommend ways that broadband can be harnessed to tackle important “national purposes.”

The Plan addresses each aspect of these Congressional requirements in a way that reflects a strong conviction that, as our Nation rebuilds its economy, broadband communications can and must serve as a foundation for long-term economic growth, ongoing investment, and enduring job creation.

Broadband is the indispensable infrastructure of the digital age—the 21st century equivalent of what canals, railroads, highways, the telephone, and electricity were for previous generations.

Multiple studies tell us the same thing—even modest increases in broadband adoption can yield hundreds of thousands of new jobs.

Broadband communications increase the velocity of information, and the velocity of commerce.

A broad array of people throughout the ecosystem—investors, entrepreneurs, business leaders, labor leaders, consumer advocates and others—agree that if the United States has world-leading broadband networks, we will see a powerful new wave of innovation, and business and job creation here at home.

The title of one recent op-ed written by the CEO of a major American technology company said it well: “Fix the bridges, but don’t forget broadband.”

We have work to do to seize the opportunities of broadband. The status quo is not good enough to maintain our global competitiveness in this rapidly changing world.

First, studies place the U.S. as low as 18th when it comes to important attributes of broadband adoption and speeds. Our record shows roughly 65 percent adoption in the U.S. compared to significantly higher adoption percentages—up to 90 percent or more—for some countries in Asia and Western Europe.

One study ranks the U.S. 6th out of 40 industrial countries in innovative competitiveness—and 40th out of the 40 in “the rate of change in innovative capacity.” The first of those rankings is enough of a concern. That last-place statistic is the canary in the coal mine.

It shows that we will not succeed by standing still, or even moving at our current pace.

Second, certain communities *within* the U.S. are lagging—rural Americans, low-income Americans, minorities, seniors, Tribal communities, and Americans with disabilities. For these groups, adoption rates are much lower than 65 percent.

Altogether, 93 million Americans are not connected to broadband at home, including 13 million children. And 14 million Americans do not have access to broadband where they live, even if they want it.

Finally, the work of the FCC staff on the broadband plan showed that the costs of digital exclusion grow higher every day. Several years ago, not having broadband could have been thought by some to simply be an inconvenience. Now, broadband access and digital literacy are essential to participation in our economy and our democracy.

- For example, more and more companies are posting job openings *exclusively* online. If someone is unemployed and does not have access to broadband, opportunities are passing them by.
- Children are increasingly given homework and research assignments that require online access. Studies show that combining in-person instruction with online learning can significantly improve educational results. Children are at a disadvantage if they can’t connect to broadband at home, or are in schools with inadequate broadband connections.

As I believe Congress anticipated when it directed the FCC to prepare a National Broadband Plan, the plan that the FCC has submitted is a plan for action, and a call to action, that these times demand.

The staff has produced a plan that is as strong as it is non-ideological and non-partisan. It was the outcome of an extraordinary process that has been unprecedented in many respects: unprecedented in its openness and transparency; in the breadth and depth of public participation; in its professionalism; and in its focus on data and its analytical rigor.

The Plan sets ambitious goals for the country, including:

- Access for every American to robust and affordable broadband service and to the skills to subscribe.
- Broadband speed of at least 1 gigabit to at least one library, school, or other public anchor institution in every community in the country.
- Affordable 100 megabits-per-second to 100 million households.
- World leading mobile innovation, with the fastest and most extensive wireless networks of any nation.
- Access for every first-responder to a nationwide, interoperable broadband public safety network.

In addition to these and other goals, the Plan lays out a robust, sensible and efficient roadmap for achieving them:

- It proposes a once-in-a-generation transformation of the Universal Service Fund from yesterday's technology to tomorrow's.
- It proposes recovering and unleashing licensed and unlicensed spectrum so that we can lead the world in mobile.
- It proposes ways to cut red tape, lower the cost of private investment, and accelerate deployment of wired and wireless networks.
- It proposes initiatives to foster vibrant and competitive free markets and empower consumers.
- It proposes a roadmap to tackle vital inclusion challenges, so that everyone, everywhere can enjoy the benefits of broadband.
- And it proposes ways in which broadband can be deployed to help solve many of our Nation's major challenges: including education, health care, energy, and public safety.

On public safety, America's first responders are on the front lines every day protecting our families and communities. The National Broadband Plan lays out a multi-part game plan designed to finally deliver on the recommendation of the 9/11 Commission that we have interoperable communications for our first responders.

I am pleased that several bipartisan members of the 9/11 Commission—including Chair and Vice Chair, Thomas Kean and Lee Hamilton—have praised the Plan's public safety provisions as “a clear roadmap for finally reaching th[e] goal” of interoperability.

I am similarly heartened that a broad array of companies—including companies that often disagree on key communications policies—as well as non-profits, consumer and public interest groups have voiced strong support for the Plan and for moving expeditiously toward implementation.

If I may pull out one quote, from the CEO of a major technology company in *Business Week*:

“The vital communications systems that make our economy work and serve as a platform for business innovation and social interactions are second-class. Sadly, many of us have accepted that. It's time to overcome our broadband complacency. The national broadband plan sent to Congress by the Federal Communications Commission is critical to our economic and national security. Without a plan, we simply cannot compete.”

I believe the Plan will deliver extremely significant economic and fiscal benefits over time, as broadband is harnessed for job creation and new investment.

And cognizant of the challenging economic times we now confront, the Plan is fiscally prudent. The Plan recognizes the overwhelming primacy of private investment in achieving our national broadband goals. And it identifies opportunities for new spectrum auctions that could generate billions in revenue, exceeding any funding or investments that the Plan suggests for Congressional consideration.

As we move forward, working with this Committee and all stakeholders, the same principles that guided the creation of this plan will guide its implementation, including:

- Processes that are open, participatory, fact-based, and analytically rigorous.
- A recognition of the transformative power of high-speed Internet.
- The essential role of private investment in extending broadband networks across our Nation.

- The profound importance of vibrant competition to bring consumers the best services at the best prices, and to spur world-leading innovation and ongoing investment.
- The necessity of tackling vital inclusion challenges and promoting universal digital literacy, so that everyone, everywhere can enjoy the benefits of a broadband Internet that is open, safe, and trusted.
- And a recognition that government has a crucial, but restrained, role to play, focusing with laser-like precision on efficient and effective solutions.

The important point is to act on the challenges and opportunities of broadband. Other countries are doing so; they are developing infrastructure to attract technology innovators. A recent New York Times article reported that, for the first time, the Chief Technology Officer of a major American tech company, has moved to China. In a report from China, the newspaper wrote: “Companies—and their engineers—are being drawn here more and more as China develops a high-tech economy that increasingly competes directly with the United States.”

Against this backdrop, last week we started the essential transition from planning to implementation, releasing a detailed agenda laying out a schedule for Commission proceedings and actions over the next year, driving forward on the broadband plan. This is an unprecedented step in both planning and transparency. It reflects both the importance as well as the magnitude of the workload ahead.

Notwithstanding the decision last week in the *Comcast* case, I am confident that the Commission has the authority it needs to implement the broadband plan. Whatever flaws may have existed in the specific actions and reasoning before the court in that case, I believe that the Communications Act—as amended in 1996—enables the Commission to, for example, reform universal service to connect everyone to broadband communications, including in rural areas and Native American communities; help connect schools and rural health clinics to broadband; take steps to ensure that we lead the world in mobile; promote competition; support robust use of broadband by small businesses to drive productivity, growth, job creation and ongoing innovation; protect and empower all consumers of broadband communications, including thorough transparency and disclosure to help make the market work; safeguard consumer privacy; work to increase broadband adoption in all communities and ensure fair access for people with disabilities; help protect broadband communications networks against cyber attack and other disasters; and ensure that all broadband users can reach 911 in an emergency.

I believe it is vitally important that the Commission act on the broadband plan’s roadmap to protect America’s global competitiveness and help deliver the extraordinary benefits of broadband to all Americans. I believe this essential mission is completely consistent with the Communications Act, and I can assure the Committee that our actions will be rooted in a sound legal foundation, designed to promote investment, innovation, competition, and consumer interests.

Thank you.

The CHAIRMAN. Thank you very much, Mr. Chairman.

I will start and be followed, of course, by Senator Hutchison, then Senator Dorgan, then Senator Johanns. Then we will go on from there in order of arrival.

As I noted at the outset, Mr. Chairman, the National Broadband Plan has more than 200 recommendations, and it is roughly 375 pages. It has recommendations for the Department of Defense, recommendations for the Department of Transportation, Department of Education, Department of Labor, Department of Justice, Federal Trade Commission, National Institutes of Standards and Technology, National Academy of Sciences, Food and Drug Administration, and a slew of others. In fact, it says by my count—that I got help on—“Congress should” 139 times.

Now, this just simply begs the question. In an effort of this magnitude, what are your priorities for the FCC coming out of this plan?

Mr. GENACHOWSKI. Well, the priorities, I think, are clearly articulated in the plan. One is reform and update the Universal Service Fund so that broadband communications can reach every Amer-

ican, including rural areas, which responds to the issues you made in your opening statement with respect to both wired and wireless broadband; second, making sure that we lead the world in mobile by having enough spectrum available to take advantage of the huge opportunity for investment, innovation, and job creation that we have; third, making sure that we deliver on the 9/11 Commission recommendations with respect to a public safety network and that our communications networks, our data networks are protected against attack; fourth, that we promote vibrant competition on our broadband communications networks; and fifth, that we protect and empower consumers with respect to broadband communications wherever they live.

The CHAIRMAN. What I am interested in is actual decisions and plans, things that are ready to go. As I indicated at the hearing we had some time ago on this, I wanted, when the plan came to us, that—you know, we would just be off and running. I do not get that impression from this. What I want to see is real changes. I want to see that happen for real consumers wherever they live.

On the FCC's legal authority, vis-à-vis *Comcast*, as you acknowledge in your testimony, last week the District of Columbia issued a decision that creates new complexities for you, for all of us. To better understand this, let us go back to the beginning. The case before the court began with *Comcast* customers discovering that the company was interfering with their use of certain Internet applications. The FCC then found that *Comcast* had "significantly impeded consumers' ability to access Internet content and applications of their choice."

So my question is simple. As a result of the court decision, what happens if *Comcast* engages in the same practices today?

Mr. GENACHOWSKI. Well, Mr. Chairman, the first thing that the case reminds us is that requirements to preserve a free and open Internet have been in place for quite some time. They were adopted by a bipartisan commission several years ago before I got there. What we have been seeking to do at the FCC is make sure that there is a sound legal foundation under it. There were some process issues with that decision, and I think we see the consequences of that. We need in my opinion to make sure that the free and open architecture of the Internet, the understanding that participants in broadband have that blocking, degrading, taking advantage of consumers is unacceptable, that we continue that. These are policies that have promoted not only consumer interests but investment, innovation, competition, and I think it is essential that the freedom, the openness of the Internet for consumers, for speakers, for entrepreneurs continue.

The CHAIRMAN. That is impressive, almost elegiac. Where are the results?

Mr. GENACHOWSKI. With respect to—

The CHAIRMAN. When are we going to see things happening? It is a wonderful report. It has all kinds of wonderful visions of life. But I do not see how it helps any of my people in West Virginia except as a vision, as a purpose. I do not see action plans.

Mr. GENACHOWSKI. Mr. Chairman, if I could, we released last week something that has been unprecedented for the Commission, a detailed plan for over 50 real actions by the Commission that will

help ordinary Americans. And if I may, even before we released the broadband plan, when we found good ideas that we could act on, we took them. And so we identified a problem with the E-Rate program where schools could not use their facilities to support people in the community. And rather than waiting for the broadband plan to be released, we said this is an idea that is ripe. Let us do it. In fact, before we issued the broadband plan, we took that action and schools are now able to use E-Rate funding for broader purposes to help their communities.

Similarly with respect to mobile, we identified, over the course of the plan, obstacles to mobile companies in some cases building out their networks to rural America, and we adopted rules that are speeding up the towers that are necessary for mobile broadband to roll out.

So we have already taken actions and the staff of the Commission is hard at work every day to continue to act for consumers, to promote investment, to promote innovation, and to extend the opportunities of broadband to all Americans.

The CHAIRMAN. Sounds good, Mr. Chairman.

My time is up.

Senator HUTCHISON?

Senator HUTCHISON. When you say that you are adopting so many different ways to improve the capability for more consumers to have Internet access or broadband, why did you not also include a recommendation to have an incentive for a private company to make these types of investments? Would that not vastly expand the opportunities for more service to consumers and could it not be one of the many recommendations that you made?

Mr. GENACHOWSKI. Senator, if I may. The plan contains a number of recommendations to incentivize greater investment. It takes a look at right-of-way issues, other obstacles to investment, lowering the costs of investment to incentivize faster investment, greater investment. Broader deployment is a core objective of the plan, and there are a number of recommendations in the plan designed to do that. I hope we caught them all. If there are any that we missed, we would be more than happy to work with you because there is no question that private investment will drive the build-out and deployment of broadband networks, that incentivizing that, making sure there is competition, is essential.

Senator HUTCHISON. So you would look at another type, which would be an incentive for private companies to make the investment so that the Government would not be the only source?

Mr. GENACHOWSKI. We would be happy to work with you on that.

Senator HUTCHISON. Thank you.

On the issue of the net neutrality rulemaking, I had sent you a letter a while back saying, is there really basically a need for this? Are there a lot of complaints? Is there something in the records that shows there is a real need to start being heavier in the regulatory area?

My question is, has the Commission conducted an economic analysis that would indicate that there is a need for more regulation when the sort of lighter regulatory hand has produced so many good results in the last 10 years?

Mr. GENACHOWSKI. Senator, a bipartisan commission several years ago adopted open Internet rules, and since then I think there has been large compliance with them. I agree in a light-touch approach, but I think the Commission had already concluded that these kinds of steps are essential. We launched a proceeding that was designed to address a number of the procedural issues that existed, clarified to bring greater certainty and predictability to this area, and to make sure that we preserve the freedom and openness of the Internet for competitors, for entrepreneurs, for innovators, for speakers. I am confident that we can do that, and I am confident that we can do that in a way that is consistent with a light-touch approach to adopting rules in this area.

Senator HUTCHISON. I would agree with you that the Commission policy that was bipartisan was to open it and basically to have the light touch. But, I think the *Comcast* decision by the court should be at least a warning flag to the FCC that it is a heavy hand and the Commission does not have the authority from Congress to actually use it and that it overstepped its bounds. I would just ask maybe what is your interpretation of the court opinion if you differ from mine?

Mr. GENACHOWSKI. Senator, my focus has been on policy principles in this area like promoting investment, innovation; promoting competition; taking seriously the needs of consumers every day, and we have developed through the broadband plan and otherwise a set of concrete action steps to get there; reforming Universal Service; making sure that we unleash mobile, promoting competition; and promoting the interests of small businesses, the engine of job creation and economic growth in our economy. There are a whole series of areas that we have been working very hard to identify the policy steps that will promote the global competitiveness of the United States and the interests of all consumers. That is what I am focused on.

We inherited a landscape that had more unpredictability and instability in it than I would have liked. The court decision reminds us of that. We have an obligation to make sure that as we protect and empower consumers, as we promote innovation, as we promote investment, that our decisions are on a solid legal foundation. There are lawyers, obviously, hard at work on this. I am convinced that we can find a way consistent with the light touch in this area, but consistent with being very serious about promoting innovation, protecting consumers, and promoting investment, that we can get to a place that works for the country and that promotes the global competitiveness of the United States.

Senator HUTCHISON. Well, I will just say that many of the commentators are very concerned that all of this process is going to mean we are going to spend a lot of money on lawyers, and not as much on innovation, and it is going to cause more confusion and instability in investment than what I think you are stating.

And I agree. The goal is to have more investment, more openness, more competition, and more availability for consumers. So, I just hope you will keep the light touch as much a part of your thinking as all of the process and, by trying to define so much, maybe having more money spent on lawyers than innovation.

Thank you.

The CHAIRMAN. Thank you, Senator Hutchison.
Senator Dorgan?

**STATEMENT OF HON. BYRON L. DORGAN,
U.S. SENATOR FROM NORTH DAKOTA**

Senator DORGAN. Mr. Chairman, thank you very much.

Mr. Genachowski, first of all, on the broadband plan, I want you to make things happen and make good things happen. So I support what you are trying to do. I know the devil is in the details, but I want you to implement an aggressive broadband plan.

But I want to talk about this issue of net neutrality, or what I call Internet freedom. I am not a big fan of the light touch, as a matter of fact. I do not want over-regulation for sure. But you know, a decade ago we had regulators come to town boasting about a new day with a light touch, and at the end of the decade, we discovered 6, 8, 10 years of willful blindness by referees was not the way to deal with the free marketplace.

The free marketplace is a wonderful place. Free and open markets are important, but you need a referee with a striped shirt and a whistle to call the fouls. And the FCC is a referee. And I want you to have the touch that is necessary to protect the interests of the American people and the citizens who use the Internet. This is an unbelievable innovation in our lives, truly unbelievable.

Let me ask a couple of questions. Is it not the case that the Internet was built, developed, and began to flourish under the rules that existed, which included the rule of "nondiscrimination?"

Mr. GENACHOWSKI. Yes.

Senator DORGAN. And so that nondiscrimination requirement represented the way the Internet was created, and the purpose of it was to make sure that the marketplace would pick winners and losers, not some gatekeeper or not some toll booth that had the money and the size. The marketplace would pick winners and losers. Is that correct?

Mr. GENACHOWSKI. I agree with that, yes.

Senator DORGAN. And so without nondiscrimination rules, perhaps a Sergei and Larry in a dorm room someplace that 10 years later would become Google might never have access to someone in Minot, North Dakota who wishes to access that website because they perhaps could not afford to pay the toll that someone wanted to exact.

And let me quote Mr. Whittaker, the famous quote, going back to AT&T, saying look, these are my pipes. I do not want somebody using my pipes free of charge, and so it goes.

Then the question is, who with their new idea has access to get on the Internet or to present their idea to everyone in the world without discrimination?

So now we have a circumstance where the nondiscrimination rules are gone because the FCC determined that the Internet was a communications service rather than a telephone service and used, I believe, Title I. But even when they did that, even that different FCC said we are going to establish four principles that are attached to it, but forgot and left out the principle of nondiscrimination, which has persuaded Olympia Snowe, and myself, and others to fight very hard to say you cannot possibly go down the road here

and say that we are against a nondiscrimination policy with respect to the Internet. I mean the opposition to that is to say, no, we are for a discrimination policy. That cannot possibly be the public policy piece that we choose.

And so let me ask the question then about, what does this court case mean and what are your alternatives to respond to it? Because I want you to respond to it aggressively to the end stage of which you are able to develop the principles that recreate the nondiscrimination rules that always existed.

What we are buying these days as consumers are bundled products, Internet, telephone service, all in a big bundle, and now we are told, well, this Internet, this unbelievable innovation in our lifetimes, should be over here and not subject to the nondiscrimination rules under which the Internet started and flourished. What are your options?

Mr. GENACHOWSKI. I agree with your description of history and the description of what we are trying to do as preserving an openness, a freedom that has existed for a very long time that was made binding by the prior commission and that needs to continue. To me that is the focus.

There are legal issues now that we have to address in view of the decision. There are lawyers working very hard in good faith on identifying the way to move forward that is based on a strong legal foundation. I am convinced we have that authority under the Communications Act, and I trust our lawyers are working with all the lawyers who have an interest here to identify the strongest legal foundation for preserving the freedom and openness of the Internet, and making sure that the next generation of entrepreneurs have a fair chance, and that consumers of Internet services are protected.

Senator DORGAN. Chairman Genachowski, I think there are two ways ahead as well. One is using your existing authority. It was, after all, the FCC which decided to take Internet out of Title II and put it in Title I and thereby abolish the nondiscrimination rules. So I mean, I think you have that opportunity. You have a couple of other opportunities, and of course, the Congress has an opportunity to address this. But I do not think between now and the end of the year it is likely that Congress is going to be addressing it. So I think we are going to have to look to the FCC to do it because the FCC unraveled it in the first place. So you have the capability, I think, using existing authority in several different ways to address it.

But I did want to, again, just say that I know that there is a lot of language around: network neutrality, Internet freedom, all these things. It really comes down to the point of the head here that we have always had a nondiscrimination requirement, saying that the big interests that now can begin to control a lot of this cannot discriminate. So that is the basis of the debate that we are having, and Senator Snowe and I have worked on this for a long, long, long while. And I hope that the end stage of this is, on behalf of American consumers, to restore the nondiscrimination rules. I do not want to in any way injure innovation, the growth of the Internet, but the fact is, it was created and grew under the very rules that we are trying to reestablish.

So listen, I hope that you will not shy away from taking the tough positions here, or making tough choices of doing what you need to do on behalf of the American consumer as a regulator. That is the role of the FCC.

So thank you for being there and thank you for taking my advice, I hope.

[Laughter.]

The CHAIRMAN. Thank you, Senator Dorgan.

Senator Johanns, to be followed by—

Senator ENSIGN. I thought I was next. I was here when you gav-
eled.

The CHAIRMAN. Well, I am not going to get into a fight. I am going to call on Senator Johanns, and then I am going to call on Senator John Ensign, and then Senator Isakson, and then Senator Begich.

**STATEMENT OF HON. MIKE JOHANNS,
U.S. SENATOR FROM NEBRASKA**

Senator JOHANNS. Chairman Genachowski, thank you very much. Chairman Rockefeller, I appreciate the fact that you take on these tough issues because this is a tough policy issue.

Chairman Genachowski, let me, if I might, focus on a statement that you have made a couple of times here, and it is in your written testimony. And that statement is that you believe you have the power, the authority within the Communications Act, to implement the broadband plan. Now, I read a part of that plan that talks about net neutrality, which is on page 58 of the plan.

Now, here is where I am coming from on that. I looked first at this *Comcast* case and there is something in this case in the very first paragraph that tells me a lot. The court says, "In this case, we must decide whether the Federal Communications Commission has authority to regulate an Internet service provider's network management practices." And it goes on to say in the second sentence of this very lengthy opinion, "Acknowledging that it has no express statutory authority over such practices, the Commission"—and then the Commission goes on to put forth this argument that you have incidental authority.

Now, here is why I cite this section, as I start my questioning today. As a former cabinet member, there were many things I thought were just and fair and would be well received, but the first question I always asked legal counsel was, do I have the authority to do this?

Senator Dorgan and I agreed on payment limits. We might have had a different approach, but I did not have the authority to do that on my own.

My first question to you is the Commission has already conceded that you do not have that express authority to implement net neutrality under Title I. Is that not the case?

Mr. GENACHOWSKI. I do not agree with that, sir.

Senator JOHANNS. Well, where is the authority? Why did the *Comcast* court not find that authority?

Mr. GENACHOWSKI. The *Comcast* court found a series of problems with the process and reasoning by the Commission in the *Comcast* case, which is clearly spelled out in the opinion.

Let me say that there are a series of very important public policy objectives: extending broadband to rural America, protecting and empowering consumers, making sure that small businesses—but these go together. And it is essential for our competitiveness, for our economy, for all Americans that we take an approach to the Communications Act that is consistent with the purposes of the Communications Act and the statutory language.

To your point about legal counsel, I completely agree. We will not do anything that is not supported by counsel where we cannot make a decision and go to court and say this is within our authority under the statute.

Senator JOHANNIS. And under *Comcast*, you have already been told. I mean, this case is very, very specific in saying you do not have the authority to do this. Even some of your own Commissioners, your fellow Commissioners, are acknowledging, well, if we do not have the authority here, we will go under Title II. Is that not the case?

Mr. GENACHOWSKI. Well, you would have to ask my colleagues, but I can assure you that anything that we do in all of the areas concerning communications will have a solid legal foundation. That is our goal. And I completely agree with you that that is our responsibility.

Senator JOHANNIS. OK.

The second piece of this—and let me zero in, if I might, on Title II because one of the Commissioners, as you know, said, well, let's just go down the Title II route. Here is my problem with that.

I have reviewed the orders of the Commission. 2002, Cable Modem Order. 2005, Wireline Broadband Order. 2007, Wireless Broadband Order. And the 2005 Brand X case that again makes it very, very clear to me that there is no way legally that you could proceed under Title II to try to regulate broadband in a way that would establish firm legal authority. Would you agree with that?

Mr. GENACHOWSKI. Our counsel is in the process of evaluating, working with all of the outside counsel who are interested, and I understand that there are a number of different options and possibilities. But I do not believe that prior decisions have closed the door on solid bases in the Communications Act to proceed on Universal Service, on small businesses, on consumers, on promoting competition and innovation.

Senator JOHANNIS. Here is the difficulty, and already I have run out of time and my hope is that we will have another round of questions because this is fundamental stuff.

But here is where you are, I think. I think you have been handed your hat in your hand by the *Comcast* case. I think under your own prior rulings, the Commission's rulings, and under the Brand X case, you cannot proceed under Title II. It would be like remaking the world. But the bottom line is this: if you want to make policy, then what you need to do is pay the filing fee, do a lot of parades, raise money, and start at this end of the table. It is just a situation, I believe, where Congress has not given you the power that you are attempting to assert under portions of this broadband plan, and we in Congress should tell you that. So any court that may review this record should understand that as a Senator, I do not believe you have the power, and I think the courts are telling you

that. The only solution to that is, therefore, to come back and work with us and try to work through these differences of policy implications.

Does that make sense to you?

Mr. GENACHOWSKI. Well, I would look forward to working with you and the Committee on a path forward that accomplishes what I think are broad goals that we have been discussing. So, yes.

Senator JOHANNIS. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

And now Senator Isakson?

Senator HUTCHISON. I think you said Ensign.

The CHAIRMAN. Ensign. Ensign. See, you spooked me. It says Ensign right here.

Senator ENSIGN. Thank you.

I think it is important for us to drill down a little further on Title I versus Title II. Are you currently considering switching broadband from Title I to Title II?

Mr. GENACHOWSKI. I have instructed our lawyers to take the recent decision seriously, to take all decisions seriously, and to evaluate what our options are. So I have instructed them to look at the policies that I think Congress and the Commission have been clear about and determine a solid legal foundation and a path to move forward.

Senator ENSIGN. Obviously, I disagree with Senator Dorgan on this. I think he wants you to go to Title II because he does not think that we have the time here in Congress to do it, and I would agree with that. We do not have the time. Once again if you take it down that track, I think it is a very dangerous thing to do. My personal belief is this is regulation looking for a problem.

Let us consider a hypothetical. What if you had a large user of the network to the point where that large user actually degraded somebody else's chance for getting on the network? Under that scenario, should the network owner be able to manage its network in a way that makes sense, that protects the smaller user, and that keeps the Internet free?

Mr. GENACHOWSKI. Well, Senator, we have tried to be clear that reasonable network management is appropriate, consistent with principles of preserving a free and open Internet.

Senator ENSIGN. Well, I believe that in the world of network neutrality that has been proposed by others, that you can end up with a situation of unintended consequences where broadband networks can get jammed up. There is more and more technology out there, and more and more users on the Internet than ever.

And so the point that I am making is that I disagree with Senator Dorgan. I think the Internet has been fabulously successful. Ever since broadband was taken from Title II to Title I, it has been fabulously successful. We have had exponential growth, and I think we are going to continue to have that with light touch regulations. If we get into heavy-handed rules, if there was a problem out there that was specific, if we had the studies showing economic harm to our country, it might be a different story. But we are certainly not seeing the kinds of widespread problems, or hardly even isolated problems, to justify a major policy change such as network neutrality.

So I just hope that you are very cautious when we move forward, and I agree with Senator Johanns that this should be something that the Congress should deal with with multiple hearings, make it public, and make it the responsibility of policymakers up here instead of doing it at the FCC.

I appreciate all the work that you all are doing. I know you have a difficult job in this very technical area.

The CHAIRMAN. Is that it? OK.

Senator Isakson?

**STATEMENT OF HON. JOHNNY ISAKSON,
U.S. SENATOR FROM GEORGIA**

Senator ISAKSON. Chairman Genachowski, would you favor reclassifying the Internet from I to II?

Mr. GENACHOWSKI. We have not settled on a path forward. We are focused on the policy objectives around rural America and consumers and small businesses that we have been discussing.

Senator ISAKSON. I know you used the term “we.” I was asking the question, do “you” think it ought to be changed from classification I to II?

Mr. GENACHOWSKI. I have not made any decisions yet. We are evaluating the court decision, and my focus has been on policies to promote economic growth, job creation, and the issues that we have talked about.

Senator ISAKSON. If—and this is a hypothetical question. If you moved Internet access from I to II, would you, to be consistent, want to reclassify Internet services and other applications as well?

Mr. GENACHOWSKI. I am not sure I understand the question, but in part, that is because of where we are in our process. My focus has been, how do we make sure that all consumers, all small businesses, all investors can have a climate where we maximize the benefits to broadband of all Americans. And there are many important issues here, including making sure that rural America has a fair chance on broadband, small businesses, consumers. These are central issues for us every day. They are central issues on the Communications Act. The Communications Act makes it very clear that we should be concerned about rural America, concerned about consumers, concerned about small businesses, concerned about investment and innovation. And in a changing world, these are difficult challenges and I acknowledge that.

Senator ISAKSON. This is just another opinion question. When we went through telecommunications deregulation back, I guess, 2 decades ago now, somewhere along there, it ended up fostering a tremendous amount of expansion in new products, new innovations, new companies, and new businesses that exist and flourish today because of it. Do you think too much regulation is an inhibitor to getting the benefits from technology like broadband and like the Internet?

Mr. GENACHOWSKI. Yes. I think it is important to make sure that any rules and regulations in this area are narrowly tailored, that they are designed to promote innovation, to address economic issues as we have in rural America, and I do think it is important with the Internet and other aspects of broadband communications to have the rules that are necessary but no more.

Senator ISAKSON. Well, I really appreciate all the words of that answer, but in particular the word "promote" because the expansion of the wonder of the Internet is what we are looking to in the future, both to reach rural people, as well as wireless broadband to get to areas where information has never been before.

I have been reading your report, and on page 273, recommendation 13.6; I will just read the recommendation because I think the Commission is saying with this recommendation what I am trying to say. It says: "Congress should consider eliminating tax and regulatory barriers to telework." This is the section where you promote telecommunications. Teleworking is something we ought to be promoting to maximize the environmental benefits and everything else. But most of our labor laws, overtime laws, and many regulations that come under the Department of Labor or from the Congress today actually are inhibitors to telework and the use of wireless broadband or broadband technology.

So in your own report, you make reference to the restraints that regulation can bring to restrict the expansion and the use of a benefit like Internet access and broadband. So follow that along as you go through the decisions that you make.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Isakson.
Senator Begich?

**STATEMENT OF HON. MARK BEGICH,
U.S. SENATOR FROM ALASKA**

Senator BEGICH. Thank you very much, Chairman Genachowski.

Thank you for being here, and I appreciate it. I am not going to get into net neutrality, Internet freedom. First, I am not a lawyer. I do not intend to debate it and, no offense to my friends who are lawyers, I do not intend to ever be one either. I will leave that to the process that you are going through.

I want to be very frank with you, very parochial, and then I have a couple of questions I am just going to put on since I have heard some of the debate here.

But first, I know as you move forward on the Universal Service Fund, and that is kind of your first stage, I know I have harassed you before and I know we have tried to get a schedule. I know you have some issues and cannot get there yet. But I would hope that you can be in Alaska prior to that because the use of the USF fund is pretty critical for us, and I would hope that you can make that commitment. Again, I know you are working on it and your office is, and we are I think badgering you every week. So to us that is important before you move down the path aggressively on the USF fund. So if you have a comment on that, I would appreciate that.

The other is a question in regards to, as you rolled out your plan, one of the things you had in there was FCC Office of Tribal Affairs and Tribal Seat on the USAC Board. What is your timetable for that?

Mr. GENACHOWSKI. As soon as possible, Senator. Let me get back to you with a specific timetable, but it was very important to us to identify in the plan the incredible shortcomings on our tribal lands of Native Americans with respect to communications, and we

take it very seriously, and we look forward to working with you on moving forward on that quickly.

Senator BEGICH. Please let us know on the timetable.

Again, a commitment on coming to Alaska? Yes, no?

Mr. GENACHOWSKI. Yes, as soon as I can. I am looking forward to it.

Senator BEGICH. Before you go too far down the road on Universal Service Fund reform?

Mr. GENACHOWSKI. I will do everything I can to get to Alaska as soon as I can, and I am looking forward to it.

Senator BEGICH. We will be on the phone every 3 days then.

[Laughter.]

Senator BEGICH. But let me ask you—again, I do not want to get into Internet freedom because your plan is much broader than that. I mean, you have some great stuff in there on education, health care, which again for a rural State like mine, it is going to be very valuable, some of the expansions and some of the efforts there.

But I want to go to the original question that the Chairman asked. I know when we do plans, when I was mayor, we would always have “the plan.” Then we would have the work flow with specific timetables. I know you have laid out—I have read the release in regard to several things that you are aggressive about.

Do you have a workflow schedule that can say, for example, item A, item B, item C, just as you have laid out in your release I think you did last week or the week before that says these are our dates and milestones that we are planning to target? I think that is where the Chairman was partially going, was the plan has a lot of stuff in there. And there will be complaints and considerations that we want to give and put on. But when you set these out, a specific timetable so we can be honest with you, hold you accountable for what you said you would do in this plan. Do you have something like that available?

Mr. GENACHOWSKI. I think the bureau chiefs and office chiefs at the FCC either have or are working very hard on specific workflows to implement what you saw in the implementation plan.

But I am very proud of the implementation plan that the FCC released last week, unprecedented in the history of the FCC to produce a transparent plan with a schedule over the course of a year of really quite a significant volume of actions. That was a breakthrough for the FCC. I appreciate the work of the staff that went into producing that.

Senator BEGICH. Yes. I do not disagree with you. I just want to get dates and times that go with it. For example, I loved one of the examples you gave which was the utilization of the services that are in schools because that was in Alaska an exempted plan, and we thank you for taking that as an example and using it nationally because we thought the rules, to be very blunt with you, were foolish when they first were established. You have discovered that now in your new role, and now made that a national program, which we appreciate.

So I guess that is what is I am looking for. I just want to see that, and I think that is important.

I have to keep glancing at Mr. Udall’s clock to see where I am at. He has a clock. I do not.

In all these plans, one of the concerns I have—and not only with yours but many other Departments and so forth that are developing plans. Do you have a financial match? Meaning you have laid out what you want to do. All this takes resources, and as we all know, for years gone by and a lot of decisions that have been made, we are in a world of hurt when it comes to the budget of this country. Do you have something that corresponds with this that says this plan will take this many years and, oh, by the way, here is what it will cost for our agency to implement this and here are resources that we hope to tap into?

And if you do not, I want to give you the answer—if you do not, I would highly encourage you to do it because I do not care if it is in this committee or my Armed Services Committee or Veterans Committee, this is going to be my mantra. We are a trillion-plus in debt this year in deficit. Plans are great, but if you do not have the money or the resources to implement them, they sit on the shelf and we will be back at it again.

So give me your thoughts then. And I think my time is up.

Mr. GENACHOWSKI. With respect to resources at the FCC itself, this is an issue that comes up when I speak with our bureau chiefs about doing more faster. One of the challenges that they each have in doing their work are the resources at the FCC themselves. So it is obviously something that we pay very close attention to. We have a budgeting cycle at the FCC also with respect to Congress.

With respect to external funding like the Universal Service Fund, that is in a different area, and of course, we take that seriously and we have issues there.

But I think your point is very well taken, and I would like to follow up with you on it.

Senator BEGICH. Absolutely. I look forward to it. Mr. Chairman, thank you very much, and thank you for your presentation today.

The CHAIRMAN. Are you finished, Senator Begich?

Senator BEGICH. Yes, only because my clock has run out. It is only because Mr. Udall moved a cup, so I have to look at it now. If I did not see it, I would keep going.

The CHAIRMAN. Well, it is a pity.

[Laughter.]

The CHAIRMAN. Senator Pryor, to be followed by Senator McCaskill, Senator Brownback, Senator Thune, and Senator Klobuchar.

STATEMENT OF HON. MARK PRYOR, U.S. SENATOR FROM ARKANSAS

Senator PRYOR. Thank you, Mr. Chairman.

Chairman Genachowski, good to have you before the Committee again. I also want to thank you for coming to Arkansas. It was a great trip and I appreciate you getting a sense of the lay of the land there.

Let me start with the Universal Service Fund. I support the reform that you are talking about, but I am concerned about the impact it may have on our small companies that offer land line service because they really do depend on USF funding in order to provide the quality and the affordable service that they do.

So can you walk me through very quickly how the FCC plans to ensure that the small local carriers still get what they need in

order to provide service in rural areas but still that accomplishes the goals you are trying to play out?

Mr. GENACHOWSKI. There was an extraordinary team that worked on these issues as part of the plan to find a way where broadband communications, high-speed data communications can be supported in rural Arkansas and other parts of the country to move from where we are now where USF is supporting yesterday's technology, to a world where it is supporting today's technology, but to do it with certainty but without flash cuts that would create more problems than it solves. It is obviously a challenge and the plan lays out, from beginning to end, starting right away, but over 10 years doing the conversion, and we believe that we can start making progress immediately, that it is important to lay out a clear calendar for companies, but finding a way to shift the program to the new communications services that people really need without having flash cuts that would disrupt existing reliances and dependencies on the program.

Senator PRYOR. Do you anticipate having to increase USF fees in order to do this?

Mr. GENACHOWSKI. The goal of the plan is to not increase the rate of growth of the fund. That would have been the easy thing to do, to say, hey, we have this fund. Now let us add to it with broadband. And we did not think that was fiscally prudent. We also wanted to avoid flash cuts. So the design of the plan is to have the shift over a period of time without increasing the growth of the fund but also without cutting it back.

Senator PRYOR. And can you tell the Committee a little bit about the mobility fund, and how they are targeted, and how many States are considered below the national standard?

Mr. GENACHOWSKI. Well, this gets to a point that the Chairman started with at the beginning. We want to make sure that we are focusing on next generation broadband communications but that we are not leaving behind basic local services. I have a 18-year-old. He is driving and I absolutely want him to have broadband access wherever he lives in the country. But if he gets into an accident, I want to make sure wherever he is, he can call 911 on his mobile phone or call me or call whatever he needs. So the plan sets out a path to tackle both of these challenges.

Not easy, of course. Not easy in a time where fiscal restraint is so important. I think it will be an ongoing topic to talk about and work on together, but these are both very important goals that I personally feel very strongly about.

Senator PRYOR. This may be my last question because I may run out of time. But the old issue of inter-carrier compensation. I know that as you go through the reform process, and to me that is one of the things that has to be solid throughout the whole process, is inter-carrier compensation. You do not want the carriers who are providing the services all the way through the system like they are supposed to and not being compensated for it.

So as you are going through this transition and all these changes, do you feel like the FCC has a plan and a commitment to keep the inter-carrier compensation flowing the way it should?

Mr. GENACHOWSKI. I think we have a plan and a direction that recognizes the multiple interdependencies and the complexities. I

cannot tell you that have already solved every complex, detailed problem that is in here. We will need help from all of the companies involved, all of the stakeholders. But we have a focused staff that understands this very well and that is very focused on the goals that are laid out in the broadband plan to achieve this, and that recognizes that we will need to rely on private companies in rural America to continue to deliver these services to people who are there.

But we also are on a track—as you know with the Universal Service Fund, if we do not start to reform it, we face the danger that the thing itself collapses. So we want to get out ahead of that. And we have had very good conversations with local phone companies who are coming in with different ideas and approaches to work on a transition. I think they are at the point now, from what I see, that they acknowledge the importance of transitioning so that they can offer all of their customers modern broadband communications.

Senator PRYOR. Mr. Chairman, before I relinquish the microphone here, I do want to thank Chairman Genachowski and the rest of the Commissioners and all the FCC staff for the hundreds, maybe thousands of hours you have put into creating this document because I know it was not easy, very time-consuming, a zillion different meetings and different details you worked through. But thank you for doing that.

The CHAIRMAN. Thank you, Senator.

Senator McCaskill?

**STATEMENT OF HON. CLAIRE McCASKILL,
U.S. SENATOR FROM MISSOURI**

Senator McCASKILL. Thank you, Mr. Chairman.

I would like to talk about the spectrum. I see how my life has changed over the last 10 years as it relates to usage of broadband. And recently, very recently, my husband got an iPad for his birthday, and I have had my hands on it more than he has. I will tell you that I am confident that there will be massive changes in the way that we are entertained, and where we are entertained, and how we are entertained by products coming over broadband. I looked out a few minutes ago and almost every head was down because they were all typing. The entire audience is transcribing this hearing and sending it to whoever they work for or whoever at their company is interested.

Clearly, this is finite. Now, if we have time, we can talk about where the 300 MHz of spectrum are going to come from, and how upset the TV stations are about the idea that some of it is going to come from them. But at the end of the rainbow, when it is all being used, and all of a sudden there is no more left, what happens? Do poor people get squeezed out and rich people, who can afford to do what my family does, be big, old hogs when it comes to bandwidth, much less the small businesses that have seven servers in their basement and are not paying any more than my mom who plays bridge and checks her e-mail once a month? What are you envisioning?

While the plan is great, I do not see you getting to that ultimate pressure point. What do we do in this country when we run out of spectrum?

Mr. GENACHOWSKI. Solving this challenge, which I agree is so important for our economy, for small businesses, for consumers, is vital. And I do not think there is any single solution. Recovering spectrum is necessary, but it is not sufficient. I think that is the point of your question. We need to encourage and incentivize new technologies that process information over spectrum more efficiently. We need to find ways to do that near-term, and also look at our longer-term R&D spend and think about whether there is enough spending going into that long-term to solve because it is such an important challenge for our country.

We have to look at all of our spectrum policies to make sure that they are promoting the most efficient use of spectrum, promoting secondary markets, and we have to make sure that we have a climate and a set of policies that are promoting business models and that have the right incentives so that a combination of smart policies in the market and technologies can solve this. If we solve it, we can lead the world in mobile and have it be an extraordinary engine for job creation, innovation for the United States for many years to come. If we do not solve it, we will be looking back in a number of years and saying why did those other countries jump ahead of us. Right now we know that we can have the best mobile innovation world happen here in the United States. I believe we have to tackle these problems so that is true in 5 years and 10 years as well.

Senator MCCASKILL. I see the end coming, and I hope the technology is developed that allows us to get more out of the spectrum we have instead of having to crowd people out of it. This was touched on a little bit before. But I am fearful, and I think it is something that the FCC really needs to focus on as you look toward the future of our economy in this country and your role in it, more importantly, the role of the private sector in developing the technology that would do that.

Let me quickly, because I do not have much time left—I know that you are talking about a voluntary giving-up of the spectrum. I may have questions in writing on that as it relates to the subject of grabbing more spectrum.

But adoption, low-income adoption. Ninety-five percent of the households in America have access to broadband, but only 45 percent of low-income households have it. So there are some things in here. Could you briefly talk about what you see as the best things in here that are going to help us with—because that really in so many ways is a key for economic strength and economic advancement by many, many people in this country is that ability to cross that great digital divide to the world of the Internet in these low-income households. Could you speak to that briefly?

Mr. GENACHOWSKI. Yes, a very, very important topic. Our work showed that there were different reasons for the adoption gap. In some cases, it is affordability and in some cases it is relevance and digital literacy. So a plan that responds to the actual causes needs to tackle all of the above.

Reforming the Universal Service Fund would involve reforming a lifeline program which tackles affordability. Competition policies will help with affordability by incentivizing lower prices. There are a series of other recommendations in the plan that go to relevancy

and digital literacy, a digital literacy core, thinking in a very smart way about Government services, accelerating E-Rate. A very high percentage of the community that are non-adopters are involved with some Government programs. And so the faster that we move to electronic Government services, we not only save money for the Government, but we actually can make a real dent in adoption.

So I would be happy to follow up with you on this. There are a lot of great ideas on the plan, and we need to pursue all of them to take us from 65 percent to our goal of 90 percent in 10 years.

Senator McCASKILL. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator McCaskill.

And now Senator Brownback who is not here. Senator Thune is not here. Senator Klobuchar is.

**STATEMENT OF HON. AMY KLOBUCHAR,
U.S. SENATOR FROM MINNESOTA**

Senator KLOBUCHAR. Thank you very much.

Hello, Chairman. Good to see you again. I, first of all, want to thank you for your plan, all the work that you are doing. I think it is incredibly important. Like everyone else who mentioned the court case and their concerns about it, I am also very concerned, but I wanted to focus more on some of the contents of the plan. We have got to find a way to get it done, as far as I am concerned.

The things that I was very interested in, are that you included a recommendation that consumers receive more pricing and performance information from their broadband provider. I have authored a bill on this with Senator Begich, the idea of digging once when counties or cities or States are tearing up a roadway, that you then put the conduit in. And that is something I have done with Senator Warner. So we appreciate that. And then finally the development of the next generation of 911. I Co-Chair the 911 Caucus with Senator Burr. So I think those are very good things.

My first focus actually is on cybersecurity and just what parts of the plan do you think could be imperiled by this court case, and what are the plans for the FCC's role with the cybersecurity? I just see it as the elephant in the room. We questioned Attorney General Holder this morning. That was my focus and how we can better ensure the security of the Internet, whether it is identity theft or anything else that may go on and how does this court decision impede you from proceeding with that.

Mr. GENACHOWSKI. Well, I think to your question, we need to, and I believe we will find a way to make sure that we have the authority we need so that steps that are appropriate for the FCC to take with respect to—

Senator KLOBUCHAR. And what kind of steps are you looking at?

Mr. GENACHOWSKI. Some of them go to best practices for networks. Some of them go to issues with respect to outages. For many agencies, including ours, there is a focus every day on developing the best set of strategies and tactics to deal with the fast-moving problem. Admiral Jamie Barnett who is heading our Public Safety and Homeland Security Bureau, is very focused on this, and making sure that we both identify the steps to take and that we have the authority to pursue them is essential.

Senator KLOBUCHAR. Right. Senator Thune and I have a bill on peer-to-peer. I could not believe the stories I heard out of Minnesota on this. You know, one employee of a company does some work at home one day, does not know that her kid loaded a P2P program on there, and all of the company's—this is a medium-sized company—all of their employee records go out onto the Internet and are taken by someone, and a bunch of them become victims of identity theft. It is unbelievable. I hope you will be looking into that as we go forward.

I thought I would talk a little bit about the focus on promoting competition by having transparency and the information available, as I mentioned before, so that consumers know how fast their Internet is, what the price is. Could you talk about the importance of that for developing this competitive marketplace?

Mr. GENACHOWSKI. Sure. One of the findings of the work we did in the broadband plan was that the speeds that consumers actually get are much lower than the advertised speeds.

Senator KLOBUCHAR. Really.

Mr. GENACHOWSKI. And that there is a lot of consumer confusion.

One of the things that makes me optimistic about this area is that new technologies provide new ways to get information to consumers in better, more efficient ways so that they can make the market work.

Senator KLOBUCHAR. Consumers would probably want to know not just what their speed is in a vacuum—that means nothing—but what the average is, what speeds are that help you to get certain things. Is that what—

Mr. GENACHOWSKI. Yes, and we have already taken steps at the FCC in terms of applications that we have released that allow people to measure the speeds that they do have. It is, of course, just the beginning, but ultimately it should be easy for a consumer to be able to know their speed, other people's speeds, various competitors' speeds so that the market can work as effectively as possible.

Senator KLOBUCHAR. Could you comment—and I know I have asked you this before—about the “Dig Once,” bill and what you have seen in other parts of the country, if you think this is workable?

Mr. GENACHOWSKI. Listen, we were happy to include that idea in the plan. There are a number of areas where there are some obvious steps that can be taken that will lower the costs of investment, and increase the speed and the deployment of wired and wireless broadband. This is one. So it is an important part of the plan, and I am glad you mentioned it.

Senator KLOBUCHAR. For the 911 piece of this, what steps is the FCC taking to move forward with an IP-based 911 system? Obviously, this is the idea that people who are calling 911 now are not just using a land line. In fact, they are not just using a cell phone. Most of our 911 call centers have adapted to that. There are still some issues. But they will be only texting, and so they are going to be stuck on a snowmobile in the middle of Minnesota or Nebraska, and lost or they break their leg, and they can only text it. We are not quite ready for that new world.

Mr. GENACHOWSKI. No. There are many challenges, but I think the goal to your point as well, is very clear. Consumers need to be

able to contact 911 with whatever communications service they are using. There are a series of steps that we are going to take, I think starting very soon, to make sure that we can move 911 to a place that whatever service you are on, you have the ability to contact a first responder.

Senator KLOBUCHAR. And the other piece of this is it really could be helpful for, say, downloading a building before the fire fighters—the blueprints where a fire fighter walked in, just the potential of safety. If you can get pictures from a scene and then send it back to first responders, whether they are cops or fire fighters. I think all this is going to happen, but we are going to have to figure out how to do it the right way with the Internet.

Mr. GENACHOWSKI. It is critical that we do it and it is critical that we have the ability to do and move quickly because we cannot afford to wait.

Senator KLOBUCHAR. Well, thank you. I had some additional questions, some concern from some of our local broadcasters. So I will put those in writing for you. Thank you.

The CHAIRMAN. Thank you, Senator.

Senator Snowe?

**STATEMENT OF HON. OLYMPIA J. SNOWE,
U.S. SENATOR FROM MAINE**

Senator SNOWE. Thank you. Thank you, Mr. Chairman.

And thank you, Chairman Genachowski for being here today discussing an array of critical issues with respect to broadband and how we are going to deploy broadband in the future. I commend you for the work that you have engaged in.

On the question of net neutrality, because we have heard so much discussed here today on both sides of the equation—and as you know, I have been a strong proponent of net neutrality legislation. In fact, Senator Dorgan and I have been working on redrafting our legislation from the previous Congress because we do think it is important.

And I think it is so often overlooked about the fact that non-discrimination requirements have existed in our telecommunications statutes for more than 70 years, a requirement to ensure against unjust anticompetitive practices, unreasonable discrimination. And that is what it is all about. In fact, I would say that innovation has really been compatible with those nondiscrimination principles since the FCC took actions in 2005. Up until the time of the court case, frankly, they co-existed. It did flourish. But the point is, we have to make sure that we have the same freedom and openness to ensure that all users of the Internet have similar capabilities.

So that is not surprising then that there is an array of groups that support net neutrality: Consumers Union, Christian Coalition, Gun Owners of America, moveon.org, Teamsters, Parents Television Council, American Library Association, across the philosophical spectrum because of the concern that if you do not have those type of protections, that you do not have the ability to prohibit anticompetitive practices by large carriers, for example, then you are going to deny the average person or the small business access to the Internet as we know it today.

It is not changing it. It is what we have had, what we have had historically.

I would like to hear from you. What are the ramifications if we do not incorporate these nondiscrimination principles?

Frankly, I think we are looking at one side—well, we do not want to regulate the Internet. Well, it is not about it. We are trying to keep it as it is. That's the interesting part about it. And I think there is even a growing consensus within the industry and with stakeholders on this very question. Even those major carriers that have opposed net neutrality legislation or approaches in the past and protections are now coming around very differently.

So I would like to have your views taking it from a different perspective, and that is, what would be the ramifications without such protections?

Mr. GENACHOWSKI. I think the ramifications could be that our world leadership in innovation and entrepreneurship goes away. It is the freedom and openness of the Internet that has created all these incredible success stories over the last 10 years, tiny companies started in the garage that now employ hundreds, thousands of people that create economic activity that are some of our major exports to other countries.

My concern is that if we do not preserve the freedom and openness of the Internet that we have had, that other countries will move forward and take our mantle as world leaders in innovation and entrepreneurship. And that is what I am concerned about. And I think to your point, preserving what we have had is all we need to do.

Senator SNOWE. That is exactly right. This is really maintaining the status quo in all of this and how best to do it, understanding that technology has evolved in very recent years—witness voice and video and we have to accommodate that as well.

The court did not say that you did not have the authority. It was that the authority was not tied to any specific statutory provision. Is that correct?

Mr. GENACHOWSKI. Correct.

Senator SNOWE. So that is what the lawyers are reexamining now, as to what authority you might have under the statutes.

Mr. GENACHOWSKI. That is correct.

Senator SNOWE. You also have an open proceeding with respect to all of this as well. So obviously, you think you do have some options under statute.

Mr. GENACHOWSKI. Correct. We opened the proceeding because we wanted to make sure that there was as much clarity and certainty as possible in this area to maximize the amount of innovation and entrepreneurship and consumer protection that we could have. So that proceeding is open. We will be getting comments in—we extended it because of the decision—in 2 or 3 weeks. I do not remember exactly. But I do hope that can become a vehicle for getting to the point that you mentioned.

I agree with you that in the last few months, since we started an open, inclusive, participatory proceeding, we have seen the area of consensus grow in terms of what the FCC should do in the area of disagreement narrow. And I think that is a very healthy thing. I am committed to continuing to work in that direction so that we

can preserve the free and open Internet that has been such a boon for our country.

Senator SNOWE. Well, I hope that we also can get to the legislative front, but in the meantime, I think it is going to be important for you to be doing the work that you are doing. And hopefully, that can work and we can build that kind of consensus in reaching that accommodation.

Does the court decision deny you beyond in the broadband plan overall, other areas in which to extend broadband, for example, I mean, in emerging technologies or where is it that it is going to inhibit your ability to implement the broadband plan?

Mr. GENACHOWSKI. It potentially raises questions in a number of areas, including Universal Service to rural America, including small businesses, including consumers, including public safety and cybersecurity.

That is why I think it is so important that we make sure that everything we do has a solid legal foundation. The Communications Act, I believe, requires the FCC to adopt policies that protect consumers, promote investment and innovation in communications networks, whether they are traditional networks or newer data networks. From a consumer's perspective, they assume that the FCC is making sure that consumers are protected, that competition is promoted, that innovation and investment are promoted, and I believe it will be completely consistent with the Communications Act for us to continue to do what the FCC on a bipartisan basis has been doing for quite some time.

Senator SNOWE. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Senator Nelson?

**STATEMENT OF HON. BILL NELSON,
U.S. SENATOR FROM FLORIDA**

Senator NELSON. Thank you, Mr. Chairman. I would ask that my statement be entered in the record as an opening statement.

The CHAIRMAN. Would I have a chance to read it first before I rule on that?

[Laughter.]

Senator NELSON. That is up to you.

The CHAIRMAN. So ordered.

[The prepared statement of Senator Nelson follows:]

PREPARED STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM FLORIDA

I am pleased to hear from Chairman Genachowski today to outline the National Broadband Plan. This plan is an important piece of the American Reinvestment and Recovery Act, which was designed to create new jobs, spur economic activity and make important investments in our Nation's long-term growth. The National Broadband Policy piece seeks to develop policies to ensure that all Americans have access to affordable, world-class broadband. I was pleased to support the Act.

I commend the Chairman, Commissioners, and the FCC staff for putting together this comprehensive 377-page plan with "Internet speed" and for developing a plan to go forward with implementation with Internet speed.

I know this report is only the beginning of the process. Some of these plans will be the subject of dozens of rulemakings back at the FCC and legislation here in the Congress. I will be watching carefully as these plans are developed to make sure that the goals of the National Broadband Plan are realized without delay.

In my home State of Florida, extending broadband pipes to citizens is no longer a luxury, it is a necessity.

- You need broadband to find and apply for jobs.
- Classroom instruction at all levels—from elementary school to graduate school—takes place over broadband lines.
- Families on military bases need high speed Internet connections to communicate with deployed military service members overseas.
- Medical records and health histories are being digitized so that our doctors and health professionals can have our complete medical history at their finger tips to provide us care.
- Small businesses, the main drivers of employment and commerce in my state, need affordable broadband access to stay competitive with larger companies in the United States and abroad.

All of these things are enabled by broadband and are necessary to get folks back on their feet and to help regain our leadership in the world.

Of the many recommendations in the plan, I am eager to hear more about the plan to free up chunks of airwaves for wireless broadband devices like smart phones and mobile computers. This is, without question, an important goal.

Although I am encouraged that the recommendations on the airwaves are described as “voluntary,” the devil is in the details. And the details are in the implementation. We need to tread carefully here given that the future of free-over-the-air TV depends on how we deal with this issue.

At a time when the investment in news gathering and reporting is declining, we need to “first do no further harm” to the diversity of independent media voices. This diversity is critical to our democracy and should not be sacrificed for any reason.

Senator NELSON. Thank you, Mr. Chairman.

Mr. Genachowski, your plan has recommendations to provide the ultra-high speed Internet to some select military installations. Of course, we have quite a bit of military in the State of Florida. So share with us what makes large military installations an ideal test bed for the ultra-high speed Internet connection.

Mr. GENACHOWSKI. One of the things that I saw at our Air Force base in Qatar when I was over there was how forward-looking the military is in understanding that broadband communications can serve multiple objectives, keep our troops with their families, whether they are at a base in the U.S. or abroad, further distance learning, making sure that troops can complete their degrees, advance in the military, further health care-related objectives. When I was in Arkansas—Senator Pryor is not here, but I met someone from the military who said when he went overseas, he had to take his paper medical records with him. So including the military as part of our test bed effort, as thinking about the ways that we can identify rolling out broadband, sharing the benefits, sharing learning, was a very important part of us. And our friends in the Pentagon was very cooperative in finding a way that they could participate in making sure that all Americans can benefit from broadband.

Senator NELSON. And if we can ever get it sufficiently secure, we could also have our military, even in the field, be able to vote while they are overseas on assignment. We have been raising that issue because when you find out exactly how many military ballots are actually absentee ballots that are counted, you will find it is a pitifully poor percentage of the registered voters. Something for your consideration.

Small business. What initiatives do you have to move forward with immediately boosting the small business segment that can stimulate investment, innovation, and job creation?

Mr. GENACHOWSKI. We found that in small business, one, the opportunity is huge for small businesses to get on the Internet, expand their markets, grow their businesses, reduce their costs by using services that are in the cloud with a real result of greater revenue, lower costs, more profits, and more jobs.

We found that there are two obstacles, essentially, to small businesses in broadband. One involves literacy, understanding what is out there, and the other involves affordability.

On the literacy/understanding piece, we have already announced—Chairman, I forgot to mention this before—a program with the Small Business Administration to immediately start providing better information to small businesses about the opportunities, how to get on broadband. Administrator Mills has been a great partner in this.

With respect to affordability, there are a series of competition issues that we need to address. We have heard many complaints from small businesses that they do not feel their choices are adequate, they feel their prices are too high. So that is an area that we are moving forward on at the Commission. It is complex but it is important that small businesses understand the opportunity of broadband and that they have real choice.

Senator NELSON. Now, in your recommendations to reallocate the spectrum from various uses, including TV broadcasting, to commercial wireless uses like smart phones and high-speed wireless Internet, the question is are you going to treat public TV broadcasters like you would the commercial TV broadcasters?

Mr. GENACHOWSKI. Well, the plan that we have suggested is a voluntary one where it is focused on commercial broadcasters that increases their options to share spectrum with another station in the market, participate in an auction, and get benefits. Public media has been extraordinarily important in the country, I think even more so as the commercial sector has had to deal with the awful economy and that has had certain consequences on programming. So public media becomes incredibly important, both with respect to traditional television—many Americans still just receive over-the-air TV—but also making sure the public media can reach the next generation of audiences where they are on the Internet, on mobile phones. We found the public television and radio community to be very interested in a partnership on the best, most effective way that they can serve their audience and their important mission in the 21st century.

Senator NELSON. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Nelson.

Senator Cantwell?

**STATEMENT OF HON. MARIA CANTWELL,
U.S. SENATOR FROM WASHINGTON**

Senator CANTWELL. Thank you, Mr. Chairman.

And Chairman Genachowski, it is good to see you. I know that the FCC is holding a workshop on its notice of proposed rule-making on net neutrality in Seattle coming up here later this month. So, I know you are going to hear a lot about what we think about in the Northwest as how fundamental it is to the future of

broadband in the United States to make sure there is an open Internet. So we appreciate you holding that field hearing.

And I always am amazed when I see these reports since the decision. You know, 53 percent of the public does not want the FCC to regulate the Internet when the issue is the public wants the FCC to protect them to make sure that the Internet is not artificially taxed by business, preventing consumers access to content without paying more for it. And the notion that somebody thinks they can spin this around Washington, I guarantee you, you will hear an earful when you get to Seattle. They understand that access to content through the Internet should not be artificially taxed.

One of the things I am curious about is since we had our hearing here about the *Comcast*-NBC merger, we have now had this D.C. decision. So the potential combination of *Comcast* and NBC—how will that impact your—I know you cannot speak specifically. I am asking you to speak broadly about the Commission in evaluating that deal. In the MCI-Verizon, you were able to condition, post-merger, certain conditions be met protecting the consumer using that net neutrality. So how will you look at making sure that content is not blocked, you know, things that will be very important for that decision?

Mr. GENACHOWSKI. As you indicate, I cannot talk specifically about the transaction, but I take your views and I will make sure that they are incorporated in the Commission's consideration of the transaction.

Senator CANTWELL. Do you have a concern generally that that is harder now since the court decision?

Mr. GENACHOWSKI. I am not sure that it is harder. I think that there are many issues, very serious issues, in the transaction that we will be taking one by one very seriously and looking at them on their own terms. I am sure that these issues will be considered very seriously as part of that. We have already heard from people on that issue in the transaction. I am sure we will hear from more. It will be taken very seriously as part of the review of that transaction.

Senator CANTWELL. I know also in another decision with the Third Circuit's removing the stay on media ownership that came out under Chairman Martin, that there is now an opportunity for the Commission to start moving on that process. And so I know you have a quadrennial review of media ownership. So to me, it is very important that the Commission start moving on this and make sure that you consider this in a comprehensive way. Is that part of the plan?

Mr. GENACHOWSKI. Yes. We started the process of the review, the 2010 review, in 2009. There will be a Commission action in the near future to go to the next stage, and we will be tackling the ownership issues.

Senator CANTWELL. Thank you.

And on the issue of the broadband plan, we are 8-plus years after 9/11 and yet the notion of interoperability communication systems for first responders is still more of a goal than a reality. In your broadband plan, you have some objectives to meet certain petitions no later than the third quarter of this year. We are very interested

in the Northwest, Seattle. Particularly in Pierce County and in Seattle, you might have seen this rash of police killings in the news. So the law enforcement community is very interested in basically getting these public safety spectrum trusts to be able to access for building an interoperable public network.

Mr. GENACHOWSKI. It is a vitally important issue, and it is a real action plan to move forward quickly and make sure we get a public safety network built. It does require, we suggest, some actions by Congress because this is an area where we do not think the private sector will get the public safety network built. But we have a series of steps to take in connection with that to make sure that networks are hardened, interoperable.

And we have a unique opportunity now that I am very hopeful that we can take advantage of. As we are building out our 4G networks, if we can build out the public safety network at the same time, we will reduce the costs of that dramatically. If we do not move forward with the public safety network now and all the 4G network truck rolls and equipment are already out and then we try to accomplish exactly the same thing later, the costs will be much, much higher. So I agree with you that it is essential to move forward and to move forward on a very fast timetable, and I look forward to working together on that.

Senator CANTWELL. The plan calls for that by the third quarter of this year. So do you think you will make that?

Mr. GENACHOWSKI. We will make our part. We do not have the funding available for the funding part, but we will do everything that we need to do on our schedule.

Senator CANTWELL. Thank you.

And I would just like to echo my colleagues' calls about unlicensed spectrum as it relates to the development moving forward of Wi-Fi. I know that you guys are looking at 20 megahertz, but there is a lot bigger need for this. So I will look forward to asking you more about that.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Cantwell.

We will go to a second round now. Do you have time?

Mr. GENACHOWSKI. Of course.

The CHAIRMAN. I was just saying to Senator Hutchison before she left, I do not know how many times I have talked here, not just in this position but in the 24 years that I have been on this committee, about ruralness, and I always somehow work the name "West Virginia" in there. It strikes me that I am not doing rural America a favor when I do that.

You talk about a looming spectrum crisis, and then you come up with the statement that the Nation needs 500 megahertz of new spectrum in the next 10 years.

But I have this worry, which goes along with what I said at the beginning, about you set out a large picture, but then there is sort of nothing taking after this 911 thing. Like Senator Cantwell, I am so shocked. I am so embarrassed. I mean, you got the blessings of the 9/11 Commission, but I am fairly sure they could not have read anything about interoperable first responders because really nothing has happened. There have been bits that have happened, of

course, but nothing fundamental has happened in the most obvious homeland security, national safety type issue imaginable.

Now, I go back to mine disaster that we had. People could not call. It was really embarrassing, Mr. Chairman, to see Verizon technicians who had been, obviously, up for 5 days trying to string wires for land lines out to a place that they rarely had ever been to before, if ever. Maybe to the elementary school where the press was. But they were out there like crazy. It was almost comical trying to string up wires so that rural America could be heard in a genuine matter of life and death, which turned out to be all death.

Now, I am not satisfied that you really are taking into consideration rural America. I think you are saying it. I think you are postulating it out there, but you specifically define when you are talking about rural America—you say that the looming spectrum crisis—when you are talking about that, it is strictly an urban problem. You refer to it as an urban problem. And that is all of a sudden when I become more than a West Virginian because the Adirondacks, the intersections of California, endless, hundreds of thousands of square miles of New Mexico, Colorado, North Dakota, the State of Washington—I mean, every State has enormous rural chunks.

The pattern of the telecommunications industry has been so clearly and so blatantly, and so obviously two-fold. One, we pledge to cover all your people. How many times I have heard that from the different people who have been doing telecommunications for the greater part of West Virginia, and they always go right to the cities, right to the businesses who will pay their bills on time, and right to the sections where the houses have the income level so they do not have to worry about it. But do not try and look for them in rural West Virginia or in rural Montana or in rural North Dakota. They are just not there and they are not going there.

So when people say—you know, I got sick of this talk. This is meant to be about real people getting service. And we got into the discussion about light touch versus heavy touch and process and Title I and Title II, and all of that is important when it comes down to it. But the real problem is getting that service to people who need it, and every single State has rural people. And I want to know what your plans are for that.

Mr. GENACHOWSKI. Well, Mr. Chairman, I could not agree more with what you are saying. If I could make a couple of points.

One is the problems in rural America with respect to deployment are very serious problems that the plan takes seriously, and it proposes the first-ever mobility fund.

The CHAIRMAN. I knew you were going to say that. Go ahead.

Mr. GENACHOWSKI. Well, it is an important step to directly tackle the challenges in rural America.

The CHAIRMAN. When will it be in place?

Mr. GENACHOWSKI. As soon as possible and we will lay out a timetable for you.

The CHAIRMAN. When?

Mr. GENACHOWSKI. There is a timetable and I apologize. We will get you a timetable to move it forward.

The CHAIRMAN. Do you have an idea? It is a lot of America.

Mr. GENACHOWSKI. As quickly as we possibly can.

The CHAIRMAN. Do you feel the pressure, though?

Mr. GENACHOWSKI. I certainly do.

The CHAIRMAN. Not of me but of rural America, of underserved, unserved people speaking, needing you. And if you need us to help you get the authority that you need, use us.

I mean, I do not want to get into this thing, but Chairman Powell made your life a whole lot more difficult, a whole lot more difficult. So let us just face facts. If you are going to need help to be able to do more, you come to us. And it may be a close vote. It may be a partisan vote. I have no idea. But it is a battle worth fighting. Getting you out to where you can do what you want to do quickly—quickly—that is the President's main problem and it is also yours. Everybody expects him to be able to get everything done in the first year and a half: peace in the world, prosperity in America, and all the rest.

You have got some of that problem too, and you asked for it because you are smart, you are aggressive, you tend, I think, to surround yourself sometimes with a rather small group of people. I do not know who you listen to from the outside. I do not know what your process for setting priorities is and making sure that they are done. The work plan that Senator Begich was talking about really is the only way that you get anything done. It is not talking about a problem. It is doing something about it.

And I want my people to be able to be treated in exactly the same way as those of my family who live in New York City. And I am not going to settle for anything less, and I am going to give you hard time until that happens.

Mr. GENACHOWSKI. I completely agree, sir.

The CHAIRMAN. Thank you.

Senator Dorgan?

Senator DORGAN. Senator Rockefeller, thank you.

The CHAIRMAN. Oh, there is a vote. Is it an important vote, do you happen to know?

[Laughter.]

Senator DORGAN. I do not know what the vote is, actually.

The CHAIRMAN. We have got 15 minutes. Go ahead.

Senator DORGAN. Well, first of all, Chairman Genachowski, thank you for, again, your work and for being here.

The implicit suggestion by some was why do you not get out of the way and let the free market work. It is a wonder, and let us let the full flower of that wonder of the free market work. I love the free market. I think it is the best allocator of goods and services that I have ever seen, but it needs a referee and you are a regulator. You are a referee.

When I say I am not for the light touch, let me be quick to say I do not want over-regulation, but I want you to use the right touch to make sure that the referee is doing what the referee must do to keep the free market free.

So with that, I want to send you some questions about the Internet and broadband and American Indians and the Indian reservations and the very significant problems of serving there. They are way behind.

I want to send you some questions about Universal Service reform, including inter-carrier compensation, which is very impor-

tant. It is very important that that reform move carefully and thoughtfully.

I am also going to send you some questions about the 100-megabit 2020, which I think is called 100 Squared. And then your plan calls for Universal Service speeds at 4 megabits. So my question will be, as I send you some questions, what part of America will be served with 100 megabits and what will get 4 megabits, and is that not, in fact, a very substantial digital divide? And what are the consequences of that for economic opportunities in a region?

But what I want to do is I want to tell you just a very short story. I grew up in a town of 250–300 people in a small house with two bedrooms and a shed out in front. And I had not been back to that house since I was a teenager. Some while ago I went back to the house, knocked on the door, and the woman who answered in this little town of a couple hundred people—I asked her would you mind if I see this home. It was where I grew up. And she said, I would be happy to have you come in.

I came in and as I entered the shed, I saw a bunch of cardboard and tape. And as I walked into the kitchen from the shed, I saw a camera on the kitchen counter and a little stanchion there with a bracelet hanging on an appendage. And I said, what are you doing? She said, well, I am taking a photograph of this bracelet. It was kind of a pretty gold bracelet. And I said, why are you doing that? She said, well, I sell on the Internet. I said, really. Yes. She said, I sell on the Internet. I sell jewelry on the Internet that I buy from others and then resell on the Internet. And I said, is that what the cardboard boxes and the tape are for? She said, sure.

So here in my home, a very small, home in a small town is a woman that reaches the world. She is on the Internet and someone from Moscow or Delhi can access what she is selling. I said, how are you doing? She said, fine. I supplement my husband that drives the gas truck for the Farmers Union Oil Company and I make a decent income selling on the Internet. It could not have been possible previously. It never would have happened. She has an international business capability from that little town.

But she has that capability because no one has the opportunity to say you are too small or we are going to impose a fee on you. We are going to impose some impediment that does not allow others to see you unless you comply with these three requirements. Pay us in order to get on our provider network. No one can do that at this point, or at least I should say no one could do that originally under the rules of the Internet because it was under Title II and included the rules of nondiscrimination.

That is why this is such an important issue, and it is why I come back to it again. I think the genius of the Internet—it is the ultimate democratic tool for everybody in the world to reach everyone else in the world without any interference. And when someone of significant clout said I do not want this user or that user using my pipes, that tells me, wait a second. We are talking toll booths and gatekeepers and others that might want to find ways to get revenue off a determination of who can be on the Internet. So that is why this is so important.

I think the firms that are involved in doing innovation, the big firms and small firms—God bless them. I support them. I am not

anti-big or anything of the sort. I want this to remain free and open. And I worry. Go back to the financial issue for the last decade or so—in fact, go back a decade and a half and see what happened under blind regulators. We need effective regulation, not to retard the innovation of the Internet, but to make certain that it remains free and open and to make certain it protects the free market.

So I just wanted to tell you that story about my little hometown because that is replicated all over America, and that is the genius of people saying, you know what? I can start a business too right here in my kitchen. That is such a wonderful story.

So let me ask you finally—my time is expiring. It is the case, to reaffirm, that the origin of the Internet, the construction of it and the growth of the Internet occurred under a series of principles which included nondiscrimination. Is that not the case?

Mr. GENACHOWSKI. I believe that is correct.

Senator DORGAN. The Chairman indicated that the FCC under a different Chairman decided we are going to change the rules and redescribe Internet service as something other than telephone service under Title II, which is the way it had been regulated. So that was no service to you and, in my judgment, the American people. I opposed it at the time. But we need to find a way, in my judgment, to restore that which always existed and has always existed with respect to telephone service and previously existed with respect to Internet service. I think it is the right way to protect the American people, at the same time to allow the Internet to flourish and grow and for the free enterprise system to work the way it is meant to work.

So, Mr. Chairman, thank you for your work and thanks for spending as much time as you have with us today.

Mr. GENACHOWSKI. Thank you, Senator.

The CHAIRMAN. Thank you, Senator.

Senator Johanns and Senator Cantwell, just two really good 20-second questions.

Senator JOHANNNS. There is not enough time to ask a question, but I would like to sit down with you more extensively.

This is not a question of whether these things are good or not good. Much of what Senator Dorgan says, many of us, myself included, could agree with, but the point is this is where we debate policy. You are not elected. No one voted for you. And it is very, very important that Federal Departments exercise the authority granted to them. *Comcast* has said very, very clearly you exceeded your authority. There just is not any way around that opinion.

The second piece of this, to go back to Title II with the history you have here based upon factual determinations and then try change the world I think will only buy greater litigation, more lawyers, and you will be stopped in the end also.

The point, Mr. Chairman, that I want to make, as I wrap up here today, is that there is a way to do this in the American system, and you are a bright guy and I have so much admiration for your background and your skills. I cannot think of anybody, as said during your confirmation hearing, better qualified to do what you are doing than you.

But it is here that this policy is argued out and fleshed out. The words exist in the English language to give you the power to do net neutrality and manage in that way if we choose to give that to you. *Comcast* said you did not have that power. And under the Title II rulings by the FCC itself and under the Supreme Court decision relative to one of those rulings, I think the decision has already been made that broadband is an information service. It is not a telecommunications service. And I think to change that now will invite, again, a court to step in and stop you.

I look forward to sitting down with you and having this great discussion.

Mr. GENACHOWSKI. I look forward to it.

Senator JOHANN. Thank you for your patience today.

The CHAIRMAN. Senator Cantwell?

Senator CANTWELL. Thank you, Mr. Chairman.

Two quick questions. Chairman Genachowski, will you decide on all open white space issues, you know, the reconsideration of the database order for the 700 megahertz no later than the third quarter of this year?

Mr. GENACHOWSKI. I believe that is right, yes.

Senator CANTWELL. OK, thank you.

And I know in the recommendations in the education recommendations, there was some discussion in there about different technology choices. Do you believe in neutrality in technology?

Mr. GENACHOWSKI. Technological neutrality?

Senator CANTWELL. Yes.

Mr. GENACHOWSKI. Yes.

Senator CANTWELL. I think it is very important. There are some models, and having neutrality I think is very important.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Thank you, Mr. Chairman.

This hearing is adjourned.

[Whereupon, at 4:37 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. JOHN F. KERRY,
U.S. SENATOR FROM MASSACHUSETTS

Mr. Chairman, thank you.

Chairman Genachowski, I support the National Broadband Plan and consider it a national priority to get robust, open, and affordable broadband to every home. That infrastructure could serve as a platform for innovation, jobs, growth, and a more participatory democracy. But it will not reach its potential if we continue to follow the previous Administration's philosophy that because broadband service is carried over the wires owned by telephone and cable we should do nothing. Under that philosophy, we fell behind the rest of the world in broadband. And our falling behind was not due to a lack of consensus on the goal that we should have the strongest broadband platform in the world. It was due to a failure of policy.

In 2004, both President Bush and I called for affordable universal broadband service by 2006, and I said it needed to be 100 times as fast as it was then. The reasons we have not reached those goals are outlined in the National Broadband Plan: broadband service is highly concentrated in the hands of one or two providers in most markets, wireless broadband is not robust enough to competitively drive improvements in wired broadband service, consumers lack the information they need to make well informed decisions, and we have not yet modernized our Universal Service Fund to ensure rural America is broadband connected.

To our industry friends who are rightly proud of the growth in broadband to date, I say that yes, it is true that we have seen an Internet fueled revolution in communications over the last twenty years. But that does not mean we cannot nor should not be doing better. I find it unacceptable that Americans in big cities like Boston don't enjoy the prices or level of service common in cities in South Korea or Japan. It is wrong that seven million Americans in small towns like Monroe and in sections of the western part of my State enjoy no broadband service at all. And the fact that well over half of our public school kids in Boston do not have Internet service at home is hurting their ability to learn and compete.

Mr. Chairman, I believe that there is a clear role for your agency and Congress to play to change these circumstances. But as you know, your authority to do so has come into question because a Federal appeals court ruled last week that the agency is highly limited in what it can do under the current regulatory classification of broadband services. I have not advocated that the FCC reclassify broadband services as a result of this decision because I trust your judgment and want you to explore all options. But I absolutely believe that the agency has that legal authority to reclassify the service in order to protect consumers and provide for universal access to affordable broadband.

According to the FCC General Counsel, the court decision places a number of Americans and American communities at risk of being left behind. He wrote recently that the "decision may affect a significant number of important Plan recommendations. Among them are recommendations aimed at accelerating broadband access and adoption in rural America; connecting low-income Americans, Native American communities, and Americans with disabilities; supporting robust use of broadband by small businesses to drive productivity, growth and ongoing innovation; lowering barriers that hinder broadband deployment; strengthening public safety communications; cybersecurity; consumer protection, including transparency and disclosure; and consumer privacy."

On the other side, telephone and cable companies are arguing that they should be unregulated and free to deliver broadband service as they wish until a new law is written. And I am not opposed to considering a new legal regime of governance designed specifically for broadband service. But I do not believe broadband either should or needs to go without FCC oversight until then. If the Commission can come up with an alternative to reclassification of broadband service for the purpose of fulfilling your mission, then I am open to hearing it. My bottom line, though, is that we must ensure that the values that produced ubiquitous telephone service in the

20th century combined with the market incentives for competition in the 1996 Telecommunications Act are part of the 21st century's platform for communication. The FCC has it within its authority to do that by revisiting the last Administration's regulatory decisions, and if necessary we can supplement those efforts legislatively.

The Broadband Plan calls for the United States to develop the most robust, widely accessible broadband infrastructure in the world by 2020. It states that we can achieve that by releasing more spectrum to encourage wireless broadband competition, better informing consumers, and protecting the open Internet. You have also suggested modernizing the Universal Service Fund and investing in a wireless network police and firefighters can access and rely on to safeguard their vital communications during emergency situations. Those efforts would respectively result in investments in rural broadband and would ensure that the radio collapses that occurred in the wakes of 9/11 and Hurricane Katrina never happen again. I support each of these initiatives.

I have a number of questions for you today that I hope will help give Americans the clearest picture possible of how your recommendations will produce results and what we in Congress need to do to help you. And as you pursue those results, you can be confident that you have an ally in this, Senator.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO
HON. JULIUS GENACHOWSKI

Question. As I noted at our hearing, in the near-term, I want the FCC to use all of its existing authority to protect consumers and pursue the broad objectives of the broadband plan. How, if at all, would classification of Internet access service as either a telecommunications service or information service affect efforts to address online copyright theft, computer viruses or spam, or cybersecurity?

Answer. The D.C. Circuit's opinion in *Comcast v. FCC* cast serious doubt on the legal theory the Commission used for the past few years to support its vital role with respect to broadband Internet access. I have shared with my fellow Commissioners a draft Notice of Inquiry for their consideration at the Commission's June 17 Open Meeting. This Notice would initiate an agency proceeding to seek public comment on how the Commission should best address the challenge that *Comcast* has handed us. It would seek comment on all options, and invite any ideas for how the Commission should proceed, including: maintaining the current "information service" classification of services such as cable modem and DSL Internet access; classifying broadband Internet connectivity service as a "telecommunications service" to which all the requirements of Title II of the Communications Act would apply; and a "third way"—similar to the highly successful approach that has been used for cell phone services since 1993—under which the Commission would identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service and forbear from applying all provisions of Title II other than the small number that are needed to implement fundamental universal service, competition, and consumer protection policies.

As you know, Section 1 of the Communications Act explains that the Commission exists "for the purpose of the national defense [and] for the purpose of promoting safety of life and property through the use of wire and radio communication." Cybersecurity is a growing concern, and the Commission has recently begun two proceedings to assess our needs in this area: we have launched an inquiry on the ability of existing broadband networks to withstand significant damage or severe overloads as a result of natural disasters, terrorist attacks, pandemics or other major public emergencies; and we have begun a proceeding to seek public comment on the proposed creation of a new voluntary cybersecurity certification program that would encourage communications service providers to implement a full range of cybersecurity best practices. We will examine the records of these proceedings closely, along with the record generated in response to the Notice of Inquiry on our legal framework. To the extent that the Commission possessed the necessary authority to address cybersecurity, as well as online copyright theft, computer viruses or spam before *Comcast*, the "third way" I mentioned above would protect that authority. If, on the other hand, the Commission decides to maintain the information service classification, jurisdictional issues would be addressed on a case-by-case basis, in light of the particular details of the proposal at issue.

I welcome your recent announcement that you, along with Chairmen Kerry, Waxman, and Boucher, intend to start a process to develop proposals to update the Communications Act. I welcome that process, and any new ideas that others may propose to address this issue, and the Commission stands ready to serve as a resource to Congress as it considers legislative changes in this area.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DANIEL K. INOUE TO
HON. JULIUS GENACHOWSKI

Question 1. I appreciate and support the efforts of the Federal Communications Commission (FCC) to provide a special emphasis on the needs of Native Americans. Broadband adoption rates by those living on Tribal lands continue to be among the lowest of any population group. According to the FCC's data, fewer than 10 percent of those living on Tribal lands have terrestrial broadband available. Factors contributing to this situation include the rural nature of many of these lands and the lack of adequate broadband deployment. The plan also notes the similar circumstances facing Native Alaskans. I am most pleased with the FCC's expression that the plan's recommendations addressing Tribal communities are intended to include Native Hawaiians. Do I have your assurance that as you move forward with your efforts to improve broadband deployment and adoption in Native communities, you will take into consideration the unique needs of Native Hawaiian communities and take appropriate steps to fully address these needs?

Answer. Yes. As the Commission moves forward in its efforts to improve broadband deployment and adoption in Native communities, we will most certainly take into consideration the unique needs of Native Hawaiians and work to address those needs. The National Broadband Plan is intended to bring broadband to all Americans. Many of the recommendations in the Plan will assist communities, including Native Hawaiians, that have fallen behind with respect to broadband deployment and adoption. The Plan also includes a number of recommendations to improve broadband deployment and adoption on Tribal lands specifically. We intend for as many of these recommendations to apply to Native Hawaiians as possible consistent with current and future law.

Question 2. Can you outline the impact that "repacking" the broadcast band would have on Hawaii? As you know, Kauai is served by translators. How would the FCC's proposals affect this population? As we saw recently with tsunami warnings, this emergency service provided by these translator stations was essential to potentially saving lives. Moreover, Hawaii Public Television also serves the entire state with translators. Will this service be put in jeopardy?

Answer. We recognize the value and importance to the public of continuing to maintain a viable broadcast television service. For example, as you observe with respect to the tsunami warnings provided by TV translators on Kauai, TV stations provide important services that must be preserved. We therefore will seek to limit the impact on television service from recovery of spectrum, and no stations will be required to cease operations. In order to make spectrum available for new uses, we may need some stations to change their channels and/or we may give others the opportunity to share channels. The plan under consideration for recovery of broadcast television spectrum would not, however, require that any stations involuntarily share or otherwise yield their channels; any such actions would be voluntary on the part of station licensees. Like stations elsewhere in the country, stations in Hawaii, both full service and low power (including translators) could be required to change channels or may seek to share channels. However, no broadcaster would have to go off the air. The Commission will carefully consider the interests of television broadcasters and the public as it proceeds with the recovery of spectrum for new broadband uses.

Question 2a. To follow up on this point, what does "repacking" and channel sharing mean for over-the-air HD? I also understand that the majority of Honolulu TV stations are multi-casting new content. What would happen to this service? Will my constituents need to rescan digital TV's and converter boxes? If channels are moved will my constituents need to purchase new antennas?

Answer. Re-packing by itself would have no impact on a station's ability to provide HD or any multicast services it may choose to offer. With respect to channel sharing, information gathered in preparation of the National Broadband Plan indicates that two stations sharing a channel should each be able to provide HD, multicast SD and mobile program services. Arrangements involving sharing between more than two stations could limit the service options of individual broadcasters in such arrangements to some extent and, in particular, their ability to provide HD and multicast services simultaneously. Any such outcome would be the result of voluntary action by the affected broadcaster, and would not be imposed by the re-packing plan recommended in the National Broadband Plan.

Any rearrangement of television channels, which includes re-packing, would require viewers to re-scan their digital television receivers and converter boxes. Also, viewers might need to obtain new antennas in cases where local stations would: (1) re-locate to a new transmitter at a site farther away or (2) move to low VHF chan-

nels (channels 2–6) and a viewer’s antenna does not already include a capability for effective reception of low VHF signals.

Question 2b. Hawaii broadcasters have expressed some concerns with the voluntary nature of your spectrum proposals. How would the Commission proceed if no local broadcasters agree to “share” channels or turn in their licenses all together?

Answer. For the Plan to work, we don’t need all, or even most licensees to voluntarily reducing use of UHF spectrum by going off the air, channel sharing or moving to the VHF band. If a limited number of broadcasters in a limited number of markets relinquish UHF spectrum, our staff believes we can free up a very significant amount of bandwidth. I believe, and the staff at the FCC believes, that a voluntary approach will work. We do not believe that it will come to the point where we have to examine other mechanisms.

Question 2c. Can you further elaborate on spectrum user fees and how you envision the Commission proceeding with them?

Answer. The National Broadband Plan calls on Congress to grant the FCC and NTIA authority to impose spectrum fees, but only on spectrum that is not licensed for exclusive flexible use. In my view, spectrum fees can serve some of the same effects that a well-functioning market produces by compelling spectrum users to recognize the value to society of the spectrum that they use.

Question 3. The National Broadband Plan (NBP) proposes a goal of having 100m homes subscribed at 100 Mbps by 2020 while the leading nations already have 100 Mbps fiber-based services at costs of \$30 to \$40 per month and beginning roll-out of 1 Gbps residential services, which the FCC suggests is required only for a single anchor institution in each community by 2020. This appears to suggest that the U.S. should accept a 10 to 12 year lag behind the leading nations. What is the FCC’s rationale for a vision that appears to be firmly rooted in the second tier of countries?

Answer. The National Broadband Plans sets forth a vision for the United States to lead the world in the number of homes and people with access to affordable, world-class broadband connections. The 100-squared initiative, which is an aspiration goal of providing 100 million homes with access to 100 Mbps download speeds by 2020, will help ensure America’s global competitiveness in the 21st century. A widespread level of affordable high-speed connectivity will encourage innovators to develop the next generation of cutting-edge applications. As a milestone, by 2015, 100 million U.S. homes should have affordable access to actual download speeds of 50 Mbps and actual upload speeds of 20 Mbps.

The Plan also sets forth recommendations designed to spur research and development, which are also key aspects of ensuring that America remains a broadband world leader. In particular, the Plan recommends a renewed focus on a Federal broadband research and development funding agenda, which includes broadband networks, equipment, services and applications. For U.S. companies to continue to be leaders in high-value areas of the global broadband ecosystem, they must continue to generate and benefit from scientific innovation.

Moreover, the Plan’s universalization targets of 4 Mbps download and 1 Mbps upload is aggressive. It is one of the highest universalization targets of any country in the world. Many nations, such as South Korea and Finland, adopted short-term download targets around 1 Mbps. The Plan recommends reevaluating the 4 Mbps target every year so this target may rise over time, which will ensure that Americans continue to receive high quality broadband access at an affordable rate, and that consumers in rural areas will continue to receive broadband service that is reasonably comparable to the service provided in urban areas.

Question 3a. 100 Mbps service typically costs \$100 per month in the U.S., or about 3 times that of other countries, and some have claimed that these costs will go up under the proposed Plan. We already know that price is one of the barriers to broadband adoption in this country. What is the FCC’s vision for how prices in the U.S. should compare to other developed nations, and how will this be achieved?

Answer. One of the goals of the Plan is for every American to have access to robust broadband service at an affordable price. The Commission intends to achieve this and other goals through policies that ensure robust competition, and as a result, maximize consumer welfare, innovation and investment. Although the price of broadband service is relevant to achieving our goal, no single metric can provide an adequate basis for comparison particularly given differences between the U.S. and other developed nations in measures of household income, market and political structures, demography and geography.

Pursuant to the Broadband Data Improvement Act, the FCC will continue to assess its international standing as part of the annual report required by Section 706 of the Communications Act. The report intends to compare the extent of broadband service capability, including information about transmission speeds and price, in a

total of 75 communities in at least 25 countries. Part of this review involves comparing relevant similarities and differences in each community, including their market structures, level of competition, the types of technologies deployed, applications and services those technologies enable, the regulatory models, types of applications and services used, and information about business and residential use of such services. This information will help the Commission staff evaluate our country's standing relative to other developed nations based on several parameters, which will provide a more holistic comparison than price alone.

Question 3b. Is the FCC committed to promoting the availability of symmetric broadband services which can enable telework, home-based entrepreneurship, home-based health care and more?

Answer. The National Broadband Plan included many recommendations meant to remove barriers to and promote telework and support entrepreneurship, as well as modernize health IT. The Plan recommended that Congress consider eliminating tax and regulatory barriers to telework and that the Federal Government should promote telework internally. I welcome the opportunity to discuss any other ideas you may have on promoting these home-based options.

Question 4. While the NBP tasks the FCC with the commendable goal of ensuring all Americans have access to broadband, it does not ensure that all Americans will receive comparable affordable services. In reality, the 100 squared plan (100 million households receiving 100 Mbps) will likely be implemented in urban areas, while rural Americans are only assured of a speed of 4 Mbps. Are we no longer committed to ensuring that all Americans receive comparable affordable communication services?

Answer. The Commission remains committed to ensuring that Americans in all regions of the Nation have access to telecommunications and information services that are reasonably comparable to those services provided in urban areas and at rates that are affordable and reasonably comparable to rates charged for similar services in urban areas, as required by section 254 of the Communications Act. I believe that 4 Mbps broadband service is, in fact, reasonably comparable to the broadband service provided in urban areas today. Although the National Broadband Plan set an aspirational goal of 100 Mbps, the median speed of broadband service purchased by consumers today is 4 Mbps, and only 6 percent of consumers subscribe to broadband service that exceeds 10 Mbps. Moreover, it is important to balance the cost of funding universal service against the burdens on consumers who contribute into the fund. While I believe that 4 Mbps is an appropriate target today, I am committed to revisiting that target every 4 years and adjusting it as circumstances change. Doing so will ensure that there is no digital divide in this country.

Question 4a. Will this lead to a bandwidth divide between urban and rural Americans?

Answer. As discussed above, 4 Mbps is the median speed of broadband service currently purchased by consumers and is therefore an appropriate target today. I am committed to revisiting that target every 4 years and adjusting it as circumstances change to ensure that services in rural areas are reasonably comparable to broadband services in urban areas. Doing so will ensure that there is no digital divide in this country.

Question 5. Under the NBP, rural communication carriers would be required to move from "rate of return regulation" to "price cap regulation." Under rate of return regulation, rural telecommunications providers have been able to invest in the build-out of broadband infrastructure that is meeting the growing needs for bandwidth across rural America. Why would it be good public policy to abandon the rate of return regulatory system that has already allowed the deployment of broadband to many rural, high-cost areas of the country?

Answer. The National Broadband Plan sets forth a vision to provide broadband access to all Americans, regardless of where they live and regardless of the regulatory classification of their carrier. Many providers, including both price cap and rate-of-return carriers, have made significant investments in broadband, and the Plan outlines ways to reduce costs, such as pole attachment and rights of way reform, to promote further investment to ensure all Americans have access to broadband. Yet, the Plan also recognizes that there are some geographic areas that lack a private business case to deploy broadband. Doing nothing would lead to a growing digital divide, which is not an option.

As one critical step to achieve the goal of universal broadband, the Commission must reconfigure the current High-Cost Universal Service Fund, which is designed to support voice service, to a new universal service program, described in the Plan as the "Connect America Fund," that will provide support for broadband networks capable of providing voice services. As part of this conversion, the Plan recommends

moving rate-of-return carriers to incentive regulation. The Plan does not, however, specify the type of incentive regulation, such as price cap.

A shift from rate-of-return to incentive regulation advances both to the general goal of ensuring widespread deployment of broadband networks and the specific tool of universal service reform. Rate-of-return regulation was implemented at a time when monopoly providers offered regulated voice telephone service over copper wires in a particular geographic area. Such an era no longer reflects the reality of converging technologies and competition in the 21st century broadband world. Indeed, a growing number of rural carriers have voluntarily elected to convert to price cap regulation to become more efficient and competitive. Moreover, the conversion to incentive regulation could help limit growth in the legacy High-Cost Universal Service Fund while the Commission moves to adopt a more efficient and targeted funding mechanism for government support for broadband investment.

Incentive regulation could take many forms. Indeed, the majority of states have already recognized the benefits of moving to some form of incentive regulation—with over 30 states having already eliminated rate of return regulation for local rates. States have found it possible to craft regimes that provide the necessary stability for ongoing investment. The Commission is seeking comment on the recommendation in the Plan, including the proposal to move to incentive regulation. The Commission also asks parties to suggest other alternatives that would allow the Commission to achieve the National Broadband Plan goals of world-leading, affordable broadband service for all Americans. The Commission welcomes and encourages all interested parties to provide suggestions, data and recommendations in response to the Notice.

Question 6. The NBP says that the FCC should “include market-based mechanisms to determine the firms that will receive Connect America Fund support and the amounts they will receive.” Can you give some examples of what this market-market based mechanism might be?

Answer. The National Broadband Plan recommends that the Connect America Fund should rely on market-based mechanisms where appropriate to determine the entities that should receive support and how much support should be provided. On April 21, 2010, the Commission adopted a Notice of Inquiry and Notice of Proposed Rulemaking, which sought comment on a procurement auction mechanism proposed by 71 economists. In addition, the Commission previously sought comment on competitive bidding, including reverse auctions. Requests for proposals (RFPs) or other procurement processes are additional examples of market-based mechanisms that could be used to determine which entities should receive support and support levels.

Question 6a. As changes to the price regulation structure are made, and market-based mechanisms are implemented to determine which providers will receive support, what consideration has been given to the billions of dollars in loans rural telecommunication providers have borrowed from the Rural Utilities Service (RUS), as well as private sector financiers Rural Telephone Finance Cooperative (RTFC), CoBank, and others, to continue to expand and improve broadband services to their customers in rural America? Do you believe these investments might be put in jeopardy as these policy shifts move forward and create uncertainty in the market?

Answer. The Commission staff met with RUS and CoBank, among others, on a variety of occasions to exchange ideas and get their input as we developed recommendations for the Plan. The recommendations in the Plan call for a staged and measured transition to enable the industry time to prepare and make adjustments. The Plan recommends the creation of a Connect America Fund to support broadband service in areas that otherwise would not have access to broadband because the costs of serving such areas exceed the revenues. In other words, the Plan recommends providing support to geographic areas that lack a private sector business case to justify deployment and the provision of service—areas that therefore would not have any broadband access absent public support.

I believe we should ensure that communities that have already have access to broadband today continue to have such access in the future. An important component of the Plan’s recommendations is the recognition that some areas will require ongoing support from the new Connect America Fund to maintain broadband service. The Commission is in the process of implementing these recommendations and looks forward to receiving input from RUS, CoBank and others on how to craft rules that will create a stable environment for ongoing investment in rural America.

Question 7. Please describe the steps that have been taken by the FCC to coordinate with the RUS to ensure that decisions made by the FCC, and its related entities such as the National Exchange Carrier Association (NECA), do not put into jeopardy investments made by rural carriers and the underlying loans that made such investments possible.

Answer. The Commission staff had a variety of meetings with the leadership and staff at RUS, as well as meetings with NECA and representatives of rural carriers, including OPASTCO, WTA and NTCA to receive input on the development of the Plan. We will continue to meet with RUS, NECA and other interested stakeholders throughout the rulemaking process to solicit input and factual information that will enable the Commission to craft workable policies that will ensure that all Americans have access to broadband.

Question 8. Chapter 17 of the plan includes a section on the legal framework for the FCC's implementation of the plan. In your testimony you stated that your counsel, along with interested outside counsel, are evaluating different options and possibilities. Concerns have been raised about the impact that the uncertainty of future actions by the FCC would have on decisions by broadband providers to invest in upgrades or expand service. How realistic are these concerns? What actions can the FCC take now to allay these concerns and to provide an environment that will continue to create jobs and stimulate investment and innovation?

Answer. Promoting continued investment and job creation, both in the core broadband networks and through Internet-based services and applications that ride on such networks, is a key priority for the FCC and a key focus of the National Broadband Plan. The private sector is the key to investment and job creation, but government policy can help facilitate those outcomes, including through recommendations of the National Broadband Plan to spur broadband deployment and adoption, such as universal service reform. Telecommunications policy must take account of current market and technological realities.

After the National Broadband Plan was released, the United States Court of Appeals for the District of Columbia Circuit released its decision in *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010). The *Comcast* decision casts serious doubt on whether the legal framework the Commission chose for broadband Internet services nearly a decade ago is adequate to achieve core broadband policies, which prior Commissions thought they had legal authority to implement. To confront this challenge, I have shared with my fellow Commissioners a draft Notice of Inquiry for their consideration at the Commission's June 17 Open Meeting. This Notice would initiate an agency proceeding to seek public comment on how the Commission should best address the challenge that *Comcast* has handed us, including how the agency can foster predictability and promote innovation and investment. It would seek comment on all options, and invite any ideas for how the Commission should proceed, including: maintaining the current "information service" classification of services such as cable modem and DSL Internet access; classifying broadband Internet connectivity service as a "telecommunications service" to which all the requirements of Title II of the Communications Act would apply; and a "third way"—similar to the highly successful approach that has been used for cell phone services since 1993—under which the Commission would identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service and forbear from applying all provisions of Title II other than the small number that are needed to implement fundamental universal service, competition, and consumer protection policies.

As you know, Chairmen Rockefeller, Waxman, Kerry, and Boucher, have announced they will start a process to develop proposals to update the Communications Act. I welcome that process, and any new ideas that others may propose to address this issue, and the Commission stands ready to serve as a resource to Congress as it considers legislative changes in this area.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO
HON. JULIUS GENACHOWSKI

Question 1. Writing on the effect of the recent court decision on the National Broadband Plan, the FCC General Counsel wrote, "yesterday's decision may affect a significant number of important Plan recommendations. Among them are recommendations aimed at accelerating broadband access and adoption in rural America; connecting low-income Americans, Native American communities, and Americans with disabilities; supporting robust use of broadband by small businesses to drive productivity, growth and ongoing innovation; lowering barriers that hinder broadband deployment; strengthening public safety communications; cybersecurity; consumer protection, including transparency and disclosure; and consumer privacy." Mr. Chairman, given these specific communities and issues that the decision places at risk, how long can the FCC examine the decision before taking action?

Answer. I intend to address the Commission's legal framework for broadband by the end of this year. As you know, after the National Broadband Plan was released,

the United States Court of Appeals for the District of Columbia Circuit released its decision in *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010). The *Comcast* decision casts serious doubt on whether the legal framework the Commission chose for broadband Internet services nearly a decade ago is adequate to achieve core broadband policies, which prior Commissions thought they had legal authority to implement. To confront this challenge, I have already shared with my fellow Commissioners a draft Notice of Inquiry for their consideration at the Commission's June 17 Open Meeting. This Notice would initiate an agency proceeding to seek public comment on how the Commission should best address the challenge that *Comcast* has handed us. It would seek comment on all options and invite any ideas for how the Commission should proceed, including: maintaining the current "information service" classification of services such as cable modem and DSL Internet access; classifying broadband Internet connectivity service as a "telecommunications service" to which all the requirements of Title II of the Communications Act would apply, and; a "third way"—similar to the highly successful approach that has been used for cell phone services since 1993—under which the Commission would identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service and forbear from applying all provisions of Title II other than the small number that are needed to implement fundamental universal service, competition, and consumer protection policies.

I welcome your recent announcement that you, along with Chairmen Rockefeller, Waxman, and Boucher, intend to start a process to develop proposals to update the Communications Act. I welcome any new ideas that others may propose to address this issue, and the Commission stands ready to serve as a resource to Congress as it considers legislative changes in this area.

Question 1a. I was here in 1996 and I can assure you that I never meant for cable and telephone broadband Internet service providers to fall outside the authority of the FCC to protect consumers, protect against discrimination, ensure that people with disabilities are given consideration, or ensure that modern communications are available to everyone in America. Given the history of communications policy, would it not fall outside of our values to have a central communications service not subject to the jurisdiction of the Federal Communications Commission?

Answer. Congress created the Federal Communications Commission with an explicit mission: "to make available, so far as possible, to all people of the United States . . . A rapid, efficient, Nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges, for the purpose of the national defense, [and] for the purpose of promoting the safety of life and property through the use of wire and radio communication." Broadband is increasingly essential to the daily life of every American. It is fast becoming the primary way we as Americans connect with one another, do business, educate ourselves and our children, receive health care information and services, and express our opinions. That is why in March, a unanimous FCC said in our Joint Statement on Broadband that "[w]orking to make sure that America has world-leading high-speed broadband networks—both wired and wireless—lies at the very core of the FCC's mission in the 21st Century."

Question 2. Mr. Chairman, some have argued that you should cede authority over broadband service to the FTC until and unless the Congress writes a new law. Yet the FTC has no clear rulemaking authority to benefit consumers in policy matters such as universal service reform, lifeline/link-up for broadband, emergency communications policies, and accessibility for the disabled. And limits to its rulemaking authority make it unlikely the FTC could implement the specific goals of the FCC's national broadband plan, such as increased transparency on broadband service speeds, truth-in-billing reform, and increased privacy protections. Also, the FTC has no clear proactive rulemaking capability to promote competition policy, through policies such as data roaming, interconnection, or pole attachment rate reform. These policies are key components of the FCC's national broadband plan. Mr. Chairman, what do you say to those who argue that the FCC should cede its authority over communications over broadband to the FTC?

Answer. In the decades since Congress created the Commission, the technologies of communications have changed and evolved, and with the guidance of Congress, the Commission has tailored its approach to these changes. But the basic goals have been constant: to encourage private investment and the building of a communications infrastructure that reaches all Americans wherever they live; to pursue meaningful access to that infrastructure for economic and educational opportunity and for full participation in our democracy; to protect and empower consumers; to promote competition; to foster innovation, economic growth, and job creation; and to protect Americans' safety. While the FCC will continue to work closely with our sister agen-

cies including the Federal Trade Commission and the United States Department of Justice on issues of mutual concern, I believe the FCC has a unique and vital role in achieving these goals.

Question 3. Mr. Chairman, Section 706 of the Telecommunications Act of 1996 requires the FCC to determine whether “advanced telecommunications capability [i.e., broadband or high-speed access] is being deployed to all Americans in a reasonable and timely fashion.” If this is not the case, the Act directs the FCC to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.” Mr. Chairman, how does your plan remove barriers to investment and promote competition in the telecommunications market in accordance with the direction in the 1996 Act?

Answer. Many of the recommendations in the National Broadband Plan focus on removing or reducing barriers to investment and competitive entry. In particular, the Plan focuses in several areas on the key input components of broadband infrastructure and service deployment. For example, this month the Commission is scheduled to implement the Plan’s recommendations regarding utility pole attachments, allowing the use of existing infrastructure for the deployment of fiber and wireless networks to provide next generation services. Also, the Plan makes several recommendations to improve the availability of spectrum, which is a crucial ingredient for many new broadband services. In addition, the Plan recommends significantly reforming the universal service program to ensure that broadband services are being deployed effectively and efficiently throughout the Nation.

Question 4. Nearly 100 million Americans are not connected to the Internet. According to your report, “they are older, poorer, less educated, more likely to be a racial or ethnic minority, and more likely to have a disability than those with a broadband Internet connection at home.” Cost remains the primary barrier to entry, and limited digital proficiency, especially among seniors and the less educated, is also cited as a reason for this gap. And children in the inner city and many rural areas lack the textbooks, tools and teachers to help improve their readiness for the digital economy. I understand that not all Americans will have access to the same level of broadband service, but I believe we should be making a basic level of service available to everyone at an affordable rate. In the 20th century, we determined that Americans needed access to the predominant communications network of that time, telephone service, to get a job, to connect with each other, and to be able to access health and emergency services. How are those values reflected in your plan for broadband service and do Americans need broadband service for those purposes today?

Answer. As more aspects of daily life move online and offline alternatives disappear, the range of choices available to people without broadband narrows. Getting a job is more difficult without access to online postings and the ability to submit applications online. Students without broadband lack access to the same level of information as their connected peers, and attempts to find medical information without access to online health sources limits patients’ knowledge, choices and care. People without a broadband connection will certainly not experience the potential benefits of broadband—increased earning potential, enhanced connections with friends and family, improved health and a superior education. Recommendations in the National Broadband Plan reflect the importance of equality of access to broadband service by setting a path to extend broadband networks through public investment in privately owned infrastructure. The Plan also includes a variety of recommendations to reduce barriers to adoption of broadband—cost, digital literacy and relevance.

Question 4a. Mr. Chairman, I am worried about those kids who have no Internet service at home even though Comcast serves Boston. And I worry about the towns in Western Massachusetts subject to only one provider of service, partially served by only one provider, or lacking service all together. What do you say to those who argue that you should only focus on those completely without access to the Internet and leave the market alone as it relates to competition or urban affordability?

Answer. The National Broadband Plan addresses all of these issues—connecting the unserved, spurring competition, and foster adoption to address cost barriers for low-income consumers. To connect the unserved, the Plan sets forth a path to connect everyone to broadband, which include, among other things, transitioning the Universal Service Fund to support broadband. But, the Plan is not limited to connecting the unserved. Rather, the Plan contains multiple recommendations that will foster competition across the ecosystem. They include the following:

- Collect, analyze, benchmark and publish detailed, market-by-market information on broadband pricing and competition, which will likely have direct impact

on competitive behavior (*e.g.*, through benchmarking of pricing across geographic markets). This will also enable the FCC and other agencies to apply appropriate remedies when competition is lacking in specific geographies or market segments.

- Develop disclosure requirements for broadband service providers to ensure consumers have the pricing and performance information they need to choose the best broadband offers in the market. Increased transparency will incent service providers to compete for customers on the basis of actual performance.
- Undertake a comprehensive review of wholesale competition rules to help ensure competition in fixed and mobile broadband services.
- Free up and allocate additional spectrum for unlicensed use, fostering ongoing innovation and competitive entry.
- Update rules for wireless backhaul spectrum to increase capacity in urban areas and range in rural areas.
- Expedite action on data roaming to determine how best to achieve wide, seamless and competitive coverage, encourage mobile broadband providers to construct and build networks, and promote entry and competition.
- Change rules to ensure a competitive and innovative video set-top box market to be consistent with Section 629 of the Telecommunications Act. The Act says that the FCC should ensure that its rules achieve a competitive market in video “navigation devices,” or set-top boxes—the devices consumers use to access much of the video they watch today.
- Clarify the Congressional mandate allowing state and local entities to provide broadband in their communities and do so in ways that use public resources more effectively.
- Clarify the relationship between users and their online profiles to enable continued innovation and competition in applications and ensure consumer privacy, including the obligations of firms collecting personal information to allow consumers to know what information is being collected, consent to such collection, correct it if necessary, and control disclosure of such personal information to third parties.

Further, the Plan also contains a variety of recommendations to increase adoption, including ways to address cost barriers to broadband adoption and utilization. In particular, the Plan recommends that the Commission expand Lifeline Assistance (Lifeline) and Link-Up America (Link-Up) to make broadband more affordable for low-income households. In addition, the Plan recommends that the Commission consider free or very low-cost wireless broadband as a means to address the affordability barrier to adoption.

Question 4b. Mr. Chairman, you have repeatedly applauded a cable industry program offering half-priced service for 2 years for low income families with children in public middle school. It is called the A+ program. How many communities have signed up for that program and what could be done to make it more attractive?

Answer. The cable industry has proposed the Adoption Plus (A+) program as a two-year pilot of a public-private partnership that would be designed to promote sustainable broadband adoption for middle-school aged children in low income households that do not currently receive broadband service. The cable industry suggested that the Federal Government provide funding to implement the pilot.

The A+ proposal provides an example of private industry taking initiative and offering solutions to partner with other stakeholders and provide comprehensive solutions for overcoming multiple barriers to adoption for low-income school children. This program has not yet been implemented, so many details of the program may need to be refined to make sure that it is attractive for communities, competitively neutral, and effective.

Several other efforts, such as Computers for Youth and Computers for Families, provide comprehensive solutions targeting low-income school-aged children and their families, and these programs could also serve as models for a national pilot program.

Question 4c. The City of Boston applied for a BTOP grant to have municipal broadband service delivered to poor communities. It was rejected because there is cable modem and DSL service available there. But your study cites that cost remains the primary barrier to service for the working poor. If the private sector is not making some level of service available to low income consumers at a very low price or for free, shouldn't cities and municipalities have the opportunity to provide those services?

Answer. The Commission is not involved with the evaluation or review of the Broadband Technology Opportunities Program (BTOP) so the Commission is unable to comment on the specifics of the City of Boston's application or the merits of their proposal. Concerns regarding the BTOP process should be directed to NTIA. The Plan recommends that Congress make clear that state, regional, and local governments can build broadband networks. Though municipal broadband has its risks and may discourage private investment, the Plan suggests that in the absence of private investment sufficient to meet local needs, towns and cities should have the right to move forward and build networks that serve their constituents as appropriate.

Question 5. Mr. Chairman, both the DOJ and the NTIA submitted comments for the plan explaining that very few firms control the market for high-speed Internet access in the U.S. Most people have at most a choice of two providers who use broadband service to leverage the sale of a bundle of other services. The Harvard Berkman Center also submitted a study as part of your deliberation that concluded it was necessary to open incumbent telephone and cable networks for wholesale use by new entrants that want to provide competing services to people's homes. I know that this is a highly contentious issue and I think it speaks to the moderate approach you took to the construction of this plan that the issue is not directly addressed in your report. I agree that we should try better consumer disclosure and more wireless competition first, but how will the Commission determine whether and in what form it might be necessary to open the wires up to competition if the spectrum and disclosure policies you have proposed do not drive higher speeds and more competitive services? Is there anything different about the market of broadband services for small businesses that requires more heightened consideration of competition issues?

Answer. The Commission, through its implementation of various provisions in the Communications Act, already requires many incumbent local phone companies to share certain inputs from their networks with competitors. The National Broadband Plan recommends that the Commission review the hodgepodge of requirements for network sharing and develop a comprehensive framework to ensure that broadband inputs, particularly for small business services, are widely available. As a part of this review, the Commission will also consider a variety of proposals for access to incumbent facilities. The Commission plans to review the needs of small businesses separately from those of residential users as the needs and services available to meet those needs may differ.

Question 5a. In wireless, given the dominance of two carriers in the market today, what is your benchmark for success in making the wireless broadband industry more competitive?

Answer. There are few areas in communications that present greater promise for our country than mobile—in terms of driving our economy and delivering broad opportunity for all Americans—and our goal must be for America to lead the world in mobile. To promote this goal, we must ensure that American consumers have access to competitive broadband data communications services whenever they want and wherever they are, and also ensure that the United States has the fastest and most extensive mobile networks in the world.

Competition is important for many reasons, including, of course, that it produces low prices and high quality for consumers. Competition also drives invention and innovation which makes it especially important in a fast-changing marketplace like communications.

For its 14th Annual Mobile Wireless Competition Report, we have undertaken a broader and more comprehensive analysis of the wireless industry than the Commission has conducted in years past. The Commission's competition policy will be fact-based and data-driven, and intended to support innovation and investment in the manner that best serves American consumers.

Question 6. I am committed to doing whatever we need to do and spending what we need to spend to ensure that if another natural or terrorist disaster hits the United States our first responders are not left unable to communicate. Did the FCC propose a system that will require police, fire, and emergency service agencies to rely on commercial carriers for their mission-critical broadband communications needs because commercial carriers have provided you with some assurance that it will be made open for use by public safety officials? What is the advantage of going commercial rather than allocating it directly to public safety officials? As you know, scores of public safety agencies have expressed concern with that proposal.

Answer. The National Broadband Plan proposes a comprehensive strategy for creating a nationwide interoperable broadband network for our Nation's police, fire and emergency services agencies. Under the Plan, these agencies will have full use of

the 10 megahertz of dedicated 700 MHz spectrum that has already been allocated for public safety broadband services. This spectrum will meet public safety communications needs during normal operations and during most emergencies. In the rare cases where additional capacity is required, public safety users will have priority access to commercial networks, including in the 700 MHz D Block. This overall strategy is the best means of providing public safety users with adequate broadband capacity while enabling them to leverage 4G commercial deployments in the 700 MHz band to significantly reduce costs.

Question 7. Pending at the Commission are more than one dozen waiver requests filed by small and large jurisdictions, including Boston, that want to start constructing such a network right now. These jurisdictions seek to use the 10 MHz of spectrum already in the hands of the Public Safety Spectrum Trust, dedicated specifically to public safety in a manner that will be compliant with the Commission's broader public safety policies and standards. Chairman Genachowski, can you provide the Committee with your opinion on these waiver requests and when you expect the Commission to act on them?

Answer. The Commission recently released an order granting conditional waivers for early deployment to twenty-one petitioners, including Boston. Each waiver recipient is required under the order to adhere to certain technical specifications, such as mandatory use of the LTE 3GPP Release 8 air interface, which is the version that major carriers have announced they will be deploying starting this year, and to submit detailed plans for achieving interoperability with other networks. We also expect that such submissions will include a discussion of any specialized equipment, features description of any specialized equipment, feature or application, and how it will be used to further public safety purposes, and how its use will conform to the Commission's stated interoperability goals. This order will enable the waiver recipients to move forward with their broadband deployment plans while preserving the Commission's long-term goals for nationwide interoperability.

Question 8. Mr. Chairman, if I understand correctly, you have suggested a program by which you have indicated that some broadcasters would submit spectrum that they have licensed but not allocated in exchange for some portion of auction receipts, thereby creating a win-win for them and wireless broadband users. And there is some room there for consideration. In the top 10 TV markets, a median of 20 channels out of 49 are directly being used by full-power broadcasters or to put it another way 120 out of nearly 300 MHz are occupied and the rest are lying fallow.

As you know, the broadcast spectrum proposal has met with much skepticism and my broadcasters back home are no exception. I know that this spectrum is the equivalent of beachfront property on the airwaves. But I cannot support moving forward until I hear from my broadcasters that it is workable and truly a win-win. Can you elaborate more on channel sharing proposals in your plan? From what my broadcasters say, channel sharing would strip consumers of the ability to watch HD, multi-cast and mobile TV programming over-the-air. Is this accurate?

Answer. As discussed below, channel sharing would not limit consumers' ability to watch HD, multicast, and mobile TV programming over-the-air. Under the approach described in the National Broadband Plan, channel sharing would be a voluntary option for broadcasters to reduce their operating costs and provide a potential source of capital for investment into programming. If a broadcaster chose not to participate, their broadcast services would not change from what they are today. With respect to station services under channel sharing, information gathered in preparation of the National Broadband Plan indicates that two stations sharing a channel should each be able to provide HD, multicast SD, and mobile program services. Channel sharing arrangements between more than two stations could, however, limit the service options of individual broadcasters in such arrangements to some extent and, in particular, their ability to provide HD and multicast services simultaneously.

Question 8a. Mr. Chairman, my understanding is that the Plan recommends that the FCC "repack" the broadcast television bands in an effort to free up additional spectrum. Would re-scanning of TV's and converter boxes be necessary after repacking, would that create consumer confusion, and would this effect future multicast and HD programming?

Answer. Viewers in markets where local stations were re-packed to new channels or changed channels as part of a sharing arrangement would need to re-scan their digital television receivers and converter boxes. We also anticipate that there would be a period of time before the re-pack would take place. To avoid consumer confusion, information would be provided in advance advising viewers of the need to and the process to re-scan their receivers and the date on which the channel changes

would take place. Re-packing by itself would have no impact on a station's ability to provide HD or any multicast/mobile services it may offer.

Question 8b. Mr. Chairman, as you know, Commissioner Clyburn has expressed concerns about the effect this proposal would have on diversity in broadcasting and on local journalism. We also had a hearing on the future of journalism earlier this Congress. Where is the FCC on their inquiry in this arena?

Answer. On January 21, 2010, the Commission issued a Public Notice announcing its examination of the Future of Media and Information and the Needs of Consumers. The objective of the review is to assess whether all Americans have access to vibrant, diverse sources of news and information that will enable them to enrich their lives and communities, as well as our democracy. The Public Notice set out a number of questions for which public comment was sought, and those comments were due on May 7, 2010. In addition to those submissions, project staff is reviewing existing studies, the records of other proceedings and other resources for pertinent data. Staff also is reaching out to industry, advocacy and public interest groups, academics and others to participate in the proceeding, through written filings or meetings. A Future of Media workshop on commercial media was held on March 4, and another, on public and other noncommercial media, on April 30. The project plans to issue a report by the end of the year which provides an assessment of the current media landscape, analysis policy options and, as appropriate, policy recommendations to the Commission, as well as other government entities and parties. The Inquiry will be conducted with great sensitivity to the First Amendment and the need to protect free speech and an independent press. Any recommendations will be crafted in furtherance of the longstanding public interest goals of the Commission's media policy, including diversity, localism and competition.

Question 9. In the National Broadband Plan, the FCC makes several recommendations regarding wholesale competition regulations for broadband services provided to small businesses. One proposal under consideration by the FCC is a petition which seeks access to local fiber facilities in order to provide broadband services to small business customers. It is my understanding that the Small Business Administration Office of Advocacy supported that petition. Are multiple broadband providers competing to serve small businesses now and what can you do to encourage broadband service delivery and packaging for the unique needs of small businesses?

Answer. I'm certain that there is a great deal of variability among small businesses throughout America regarding the competitive choices each has available to serve its unique needs. With a proper regulatory framework and suitable data necessary to implement that framework, we can better ensure that small businesses have sufficient competitive alternatives to meet their evolving needs. In response to the Plan's recommendations, we are undertaking a review of existing policies and development of just such a competitive framework.

Question 10. Mr. Chairman, though this debate today has broken largely along partisan lines, it should not. Neither network neutrality nor ensuring that our communications network is accessible to everyone are partisan issues. The Christian Coalition's Vice President of Communications, Michele Combs put it best in testimony before your Commission when she said that "We believe that organizations such as Christian Coalition should be able to continue to use the Internet to communicate with our members and with a worldwide audience without a phone or cable company snooping in on our communications and deciding whether to allow a particular communication to proceed, slow it down, block it, or offer to speed it up if the author pays extra to be on the 'fast lane.'" She went on to say, "Any threat to the ability of organizations and groups to reach the American public at very low cost without permission is simply unacceptable and strikes at the heart of an engaged citizenry and well functioning democracy in the 21st century." Mr. Chairman, in your review of the comments on an Open Internet and network neutrality, have you noticed a disconnect between what those who use the Internet like the Christian Coalition on one of the political spectrum and Daily Kos on the other or are users largely united on this question?

Answer. Staff review of the comments in the Open Internet proceeding is ongoing; we received reply comments from tens of thousands of people and entities at the end of last month. Commenters from across the political spectrum have expressed support for the proposed open Internet principles, with a particular emphasis on the benefits of the principles for promoting free speech and innovation, and enabling new and/or traditionally marginalized voices to participate online.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BYRON L. DORGAN TO
HON. JULIUS GENACHOWSKI

Question 1. Reforming intercarrier compensation and the Universal Service Fund is a difficult but critical undertaking. Transitioning from a regime that supports voice telephony to one that supports broadband is not an easy task. The National Broadband Plan suggests that the current size of the fund can be used to bring fast and affordable broadband to the Nation. How do you plan to make these changes without growing the current size of the fund?

Answer. Universal service resources are finite and contributions have grown significantly over the last decade. The contribution factor is at its highest ever level at more than 15 percent. To keep the overall size of the Universal Service Fund within baseline projections, the Commission will need to eliminate inefficient funding of legacy voice service and refocus Universal Service Funding to directly support modern communications networks that will provide broadband as well as voice services.

The National Broadband Plan recommends a 10-year transition to ensure that service providers that rely on universal service to provide voice service to their communities can make the migration to broadband successfully. During this transition, the Plan recommends that the Commission establish a Connect America Fund to support broadband and a Mobility Fund to provide one-time support to consumers in states that significantly lag the national average for 3G service. During this same period, the Plan also recommends that the Commission reduce spending under the legacy high-cost support mechanisms and target the savings to the Connect America Fund and other recommendations in the National Broadband Plan. On April 21, 2010, the Commission adopted a notice of inquiry and notice of proposed rule-making, which sought comment on: (1) moving rate-of-return companies to incentive regulation, (2) retargeting interstate access support to a new Connect America Fund, and (3) eliminating funding for competitive eligible telecommunications carriers over a five-year period. The Plan recommends that by the end of the transition, the Commission eliminate the legacy high-cost support mechanisms and all support will be provided through the Connect America Fund.

Question 2. Today, according to one survey, North Dakota ranks 42nd out of fifty states in broadband speed. Your goal for “100 Squared”—100 million households with 100 megabits-per-second download speeds—by 2020 is laudable. Yet the plan also calls for a reformed Universal Service Fund that supports broadband offerings at 4 Mbps. How can your universal service plan get us to “100 Squared”? How will you structure the policies to meet these goals in a way that doesn’t exacerbate the existing digital divide?

Answer. The National Broadband Plan sets forth a path for the United States to lead the world in the number of homes and people with access to affordable, world-class broadband connections. The Plan includes a goal of connecting 100 million U.S. homes with affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps by 2020. The Plan recommends encouragement of private sector investment to realize this goal by, among other things, fostering competition, driving demand for increased network performance and lowering the cost of deploying infrastructure. These will help inform consumers about broadband performance, expand services and infrastructure, and reform access to rights-of-way to lower barriers to entry for firms.

At the same time, ensuring all people have access to broadband requires the Commission to set a national broadband availability target to guide public funding. An initial universalization target of 4 Mbps of actual download speed and 1 Mbps of actual upload speed, with an acceptable quality of service for interactive applications, would ensure universal access. The 4 Mbps is the median speed received by residential consumers today, and what many consumers are likely to use in the near term, given past growth rates. A universalization target of 4 Mbps download and 1 Mbps upload is aggressive. It is one of the highest universalization targets of any country in the world. Many nations, such as South Korea and Finland, have already adopted short-term download targets around 1 Mbps.

To ensure that consumers in rural areas receive broadband speeds reasonably comparable to urban areas, the Plan also recommends reevaluating this 4 Mbps funding target every 4 years and adjusting it as appropriate to reflect changing consumer use and demand. Doing so will ensure that there is no digital divide in this country.

Question 3. Many of the goals laid out in the plan focus on mobility and the need for fast, extensive wireless networks. But I do not believe the plan addresses the issue of handset device exclusivity and its effect on competition. Chairman Genachowski, at a hearing in the Commerce Committee last June, you committed

to reviewing the exclusive arrangements between wireless carriers and cell phone manufacturers. What is the current status of the petition for rulemaking on handset device exclusivity filed in May of 2008?

Answer. On May 20, 2008, the Rural Cellular Association filed a petition requesting that the Commission initiate a rulemaking proceeding examining “exclusivity arrangements between commercial wireless carriers and handset manufacturers.” The Commission collected a record on the petition last year. In addition to assessing the record submitted, Commission staff are meeting with interested parties and are independently monitoring and evaluating the availability of handsets to consumers, and to smaller service providers, in the mobile wireless marketplace.

Question 4. There are a number of departments and agencies that work on broadband issues. How will the FCC work with those partners to improve broadband access and availability in Indian country?

Answer. The NBP includes a number of recommendations to improve coordination across Federal departments and agencies that work on broadband issues. In particular, Recommendation 9.14 urges the Executive Branch to establish a Federal-Tribal Broadband Initiative specifically for this purpose. Once this Initiative is established, the Commission will work closely with its Federal partners on the Initiative to improve broadband access and availability on Tribal lands.

We are already in the process of implementing other recommendations that will enable the Commission to more effectively coordinate with Federal partners. For example, we are creating an Office of Native American Affairs, which will work with other Federal departments and agencies to coordinate cross-agency efforts for helping Tribes. We expect to appoint a Director to this Office shortly. We are also in the process of establishing an FCC-Native Nations Broadband Task Force, which will include senior staff from all FCC Bureaus and Offices. This Task Force will ensure that Tribal concerns are considered in all broadband-related discussions and initiatives involving the Commission and other Federal departments and agencies.

Question 5. The National Broadband Plan proposes establishing a Federal-Tribal Broadband Initiative, a FCC-Tribal Broadband Task Force and an Office of Tribal Affairs. How will these entities coordinate with tribes and with each other to assist tribes in improving broadband access?

Answer. We envision that all three entities will coordinate with each other in a close and integrated manner. The Office of Native American Affairs will be led by a new Director, who will lead a staff focused exclusively on Native American issues. In addition to having dedicated staff support, the Director will also be able to leverage the full expertise and resources of the Commission through the FCC-Native Nations Broadband Task Force, which will be led by the Director and will include senior staff from all the Bureaus and Offices. Once the Federal-Tribal Broadband Initiative has been established, the Director and the Task Force will represent the Commission on the Initiative.

With respect to coordinating with Tribes, the Office of Native American Affairs will engage in regular and meaningful communication with Tribal governments, organize outreach activities and events, and serve as a resource and partner to Tribal governments. In addition, both the FCC-Native Nations Task Force and the Federal-Tribal Broadband Initiative will include elected or appointed leaders of Tribal governments, which will enable and facilitate direct coordination with Tribes. The Task Force will also develop a formal FCC consultation policy for consulting with Tribal governments.

Question 6. The lack of data is a consistent problem for most Indian issues, and broadband is no exception. I applaud your recommendations aimed at better broadband data collection on tribal lands. How can this data assist the FCC and others in increasing access to broadband for tribes?

Answer. The lack of data regarding broadband deployment and adoption on Tribal lands renders it difficult to understand the true scope of the challenge, formulate intelligent policy, and address specific needs across Tribal communities. For example, we do not have a clear understanding of the amount of additional funding that would be needed to deploy broadband infrastructure to all Tribal lands. The lack of data also complicates efforts to measure the efficacy of adoption efforts and initiatives. With better data, we could begin the process of identifying needs, developing tailored approaches, and working with Tribes to implement real solutions.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO
HON. JULIUS GENACHOWSKI

Question 1. Almost eight and one half years after 9/11, an interoperable communications system for our first responders remains a goal rather than a reality. There are some actions the FCC can take in the immediate term to improve public safety communications. Pending at the FCC are waiver requests from several cities that want to start immediate construction of an interoperable public safety network. Seattle is one of the cities. Seattle is proposing to use spectrum already in the hands of the Public Safety Spectrum Trust in a manner that will be consistent and compliant with the Commission's broader public safety policies and standards.

Public safety organizations in neighboring communities in Pierce County want to expand Seattle's proposed interoperable network southward once it is up and running. Last year, there were five police officers murdered in Pierce County. In one incident, law enforcement officials told me that its lack of interoperable communications across jurisdictions slowed down their manhunt to track down the perpetrator. Do you believe the Seattle waiver request is consistent with the public safety objectives of the national broadband plan?

Answer. We recently released an order granting conditional waivers to twenty-one petitioners, including Seattle. This order will enable Seattle and the other waiver recipients to move forward with their broadband deployment plans while preserving the Commission's long-term goals for nationwide interoperability.

Question 1a. The Commission's proposed broadband plan agenda indicates it will act these on petitions no later than in the third quarter this year. Can you assure me that the Commission will keep to this schedule?

Answer. We have already released an order acting on these petitions.

Question 2. The D Block auction during Chairman Martin's watch was a complete failure. The National Broadband Plan recommends licensing the D Block for commercial use, with options for public safety partnerships. That is a change from the earlier plan for the D block auction winner to build out a joint network for public safety and commercial use.

There are some who argue that the spectrum should be given directly to local public safety. Most emergencies tend to be either local or regional in nature. Under this scenario, the local government would negotiate with a local carrier to operate the network. Why do you believe the approach described in the National Broadband Plan will be more successful than providing the spectrum directly to public safety in cities and regions and allowing them to negotiate with local telecommunications providers?

Answer. The public safety broadband spectrum is licensed to the Public Safety Spectrum Trust (PSST), which includes on its board representation from a number of national public safety organizations. With regard to the commercial D Block adjacent to the public safety broadband spectrum, the Commission must auction the D Block for commercial use in order to comply with current law. Notwithstanding the legal requirement to auction the D Block, our analysis indicates that mere reallocation of the D Block to public safety would not ensure deployment of a nationwide, interoperable public safety broadband wireless network that is reliable and resilient. The National Broadband Plan's approach, on the other hand, will achieve this goal by providing public safety users with 10 megahertz of dedicated spectrum, priority access to 700 MHz commercial spectrum when they need it (providing significantly more capacity), and the ability to leverage commercial deployments—including in the D Block—to reduce their overall costs significantly. Making the D Block available for commercial use will also ensure there is a market for consumer-priced "off the shelf" devices that will greatly reduce device costs for public safety, in contrast to the current situation where specialized public safety devices often cost thousands of dollars per unit. One essential ingredient to a nationwide, interoperable network, also recommended by the Plan, is public funding to bring public safety's chosen partners up to public safety standards and to extend the network into rural areas. Reallocation of the D Block alone will not ensure a nationwide network. Funding is necessary in this regard and the National Broadband Plan's recommendations were based on a detailed cost model. The ability for the National Broadband Plan's recommendations to create a nationwide, interoperable public safety broadband network is a key reason that the former Chair, Vice Chair and two members of the 9/11 Commission called the FCC's plan "a realistic framework to move forward."

Question 2a. Is getting the Emergency Response Interoperability Center up and running a gating function for building out the public safety network? How do you ensure that NIST and DHS will participate fully in ERIC? Will that require legislation?

Answer. The Commission recently released an order establishing ERIC, which is now in the initial staffing phase. The Commission is in the process of negotiating Memoranda of Understanding (MOUs) with both NIST and DHS, which should obviate the need for legislation to ensure their participation. We have already been engaged in close coordination with these Federal partners, and my staff and I look forward to working with our Federal partners to make ERIC a success.

Question 2b. What happens to implementation of the public safety recommendations of the National Broadband Plan if Congress cannot appropriate \$6.5 billion over the next 10-years for a new grant program to help construct the network?

Answer. The bottom line is that, without significant public funding, the public safety broadband network will be neither nationwide nor fully interoperable. Reliance on commercial partnerships alone, or on the reallocation of the D Block to public safety, cannot guarantee deployment in remote areas or ensure that public safety broadband facilities are built to required standards for hardening, reliability and redundancy. The public funding program is therefore a crucial component of the Plan's strategy for creating the network.

Question 2c. Do you believe the Commission currently has authority under the universal service provisions of the Telecommunications Act of 1934 (as amended) to have telecommunications providers add a small service charge to customers' bills to help toward the funding of the public safety network's operations?

Answer. The Plan recommends that Congress consider enacting legislation to create a funding program to support capital and operational expenses for the public safety broadband network. I believe that Congressional action is the best means of assuring that the Commission has a clear source of authority to put this mechanism into place. The public safety broadband network will thrive only if a sustainable and adequate public funding mechanism is established to support the operation, maintenance and continual evolution of the network.

Question 3. My understanding is that under the National Broadband Plan, the over-the-air television broadcasters in certain markets will be provided with incentives to return some spectrum and have their channels moved closer together. I imagine the Commission would want to pack the over the air broadcast channels in as close together as the interference protection rules allow. If this is the case, would the relocation of over-the-air broadcaster's channels into a narrow band lead to a dramatic reduction in the amount of spectrum available for white space in most communities?

Answer. The Commission is currently developing plans for beginning to implement the National Broadband Plan's recommendation for recovery of a portion of the spectrum currently used by over-the-air television stations. In implementing that plan, there is potential for impact on the amount of white space, (locally vacant, TV spectrum) that is available for use by unlicensed white space devices. The extent of such impact and how it would affect the amount of white space spectrum available in different communities would depend on how the spectrum recovery is implemented. The National Broadband Plan also recommends that the Commission provide additional spectrum for unlicensed devices on a nationwide basis; such additional spectrum could offset any potential unlicensed spectrum that might be reduced through changes in allocation and use the extant broadcast television spectrum.

Question 4. The broadband plan urges the FCC to complete the necessary actions to implement the use of fixed wireless and portable personal devices in the broadcast white space. If Congress were to make the statutory changes to implement the spectrum proposal in the plan, how might it impact the current rules regarding the use of the broadcast white spaces?

Answer. The requested statutory changes would facilitate the transfer of spectrum from the over-the-air television service to wireless broadband uses. This change could reduce the amount of TV white space that is available at individual locations and such a reduction could affect certain aspects of the TV white space rules, including those governing the spectrum used by fixed versus personal/portable devices and perhaps other portions of the rules depending on how the spectrum recovery is implemented. Accordingly, the Commission may need to review its TV white space rules in light of any changes it makes in the spectrum that is available for over-the-air television once those changes are complete.

Question 5. The FCC issued its final order in the broadcast television white spaces proceeding in November of 2008. A number of parties have asked the FCC to reconsider its order. Additionally, there are other open issues at the Commission that impact the use of the white spaces such as the database proceeding and the 700 MHz proceeding including questions around wireless microphones operating illegally in the band. The FCC order has been appealed to the courts and the court case has

been held in abeyance until the FCC completes its reconsideration proceeding. I am pleased to see that your Broadband Agenda has indicated that you plan to issue a white spaces Opinion and Order in the third quarter of this year. Will you decide all open white spaces issues: the reconsideration, the database order and the 700 MHz issues no later than the third quarter of this year?

Answer. As you indicate, there are several matters outstanding that affect TV white spaces, including petitions for reconsideration, selection of one or more database administrators and a decision on final rules for wireless microphones. We intend to complete our action on the petitions for reconsideration and wireless microphones in the third quarter of this year. We also expect that we would complete our decision on the database manager(s) in the same time-frame or shortly thereafter.

Question 6. I've been a strong advocate for technology neutrality—be it in healthcare IT, smart grid, or cybersecurity. My belief is that if we establish a neutral playing field it will allow many options to emerge. Consumers and businesses will benefit from a diversity of choices. I believe it is important to clearly describe the desired objectives of the National Broadband Plan and ensure that all segments of industry can compete in a technology neutral manner to meet the prescribed goals. It is important that policymakers refrain from adopting policies that pick winners and losers. The discussion around education software was largely focused on touting the benefits of a particular software business model—open source (p. 231).

I have nothing against this particular business model, but it is critical that the government not prescribe which technology or software development business model should be adopted—either when it is a market actor or when it is making policy. Do you believe that technology neutrality is important and will this principal guide your communications policy decisions in implementing the National Broadband Plan?

Answer. I agree that the Commission should always strive where possible to avoid placing its thumb on the scales to favor one technology choice over another. The National Broadband Plan is based on this same philosophy and specifically supports “regulatory frameworks that are pro-competitive, transparent and technology-neutral.”

Question 7. The use of advanced metering will contribute to our Nation's energy efficiency and conservation efforts. There is some concern, though, that information obtained from advanced metering will allow utilities and third parties to infer patterns from the data they collect of what goes on in a household over the course of a day. This stream of information may become another source of revenue for utilities and allow them to evolve their business model. There is a question of consumer privacy. The Telecom Act of 1996 created Section 222 of the Communications Act on how telecom companies need to treat the privacy of Consumer Proprietary Network Information. Do you believe there should be an analogous statute created for the smart grid?

Answer. The National Broadband Plan (NBP) recommends that consumers be able to access and control their own digital energy information. Privacy and security are critical to the success of the Smart Grid; the NBP stresses that “security and privacy should be fundamental to both network architectures and everyday business processes.”

The NBP recommends that states update their energy data policies, to include privacy and data accessibility rules for the Smart Grid. However, the NBP also recommends that “if states fail to develop reasonable policies over the next 18 months, Congress should consider national legislation to cover consumer privacy and the accessibility of energy data.”

Consumer Proprietary Network Information (CPNI) rules are principally about privacy and the protection of customer information in telecom. There are separate rules, such as Truth-In-Billing, that address the customer's rights to access his or her own data. Other industries, like health care, have integrated protection *and* accessibility rules. HIPAA, as an example, sets forth national rules to protect personal information, to ensure patients can get timely access to their own information, and to allow authorized third parties access to patient data. If Congress is going to consider national smart grid legislation about energy data, it would be worth considering including provisions for both the protection *and* accessibility of the data.

Question 7a. Do you believe utilities should allow consumers to provide an affirmative consent before it can disclose smart meter information to third parties?

Answer. Generally yes, but with exceptions. With safeguards, electric utilities should be able to conduct certain regulated activities, such as energy efficiency programs, *without* requiring individual affirmative consent for data disclosure. Imagine, for example, a third-party vendor that helps a utility with its energy efficiency programs. Today, this vendor already has to comply with the utility's existing data

protection rules—*i.e.*, a consumer’s monthly energy usage data can only be used to help the utility offer energy efficiency products/services back to the customer. Requiring utilities to now get individual affirmative consent would have the unintended consequence of lowering the response rate to the utility’s energy efficiency programs.

There are a few other limited scenarios where, with the proper safeguards (*e.g.*, anonymization of personal information), utilities should be able to disclose a subset of information gathered from smart meters without affirmative consent. The NBP offers examples:

“With reasonable privacy protections, the Federal Government should be granted limited access to utility bills from homes receiving Federal energy efficiency funds to better evaluate the government’s energy efficiency programs, such as weatherization. Energy consumption data, when aggregated, can be very useful to a wide variety of public policy and economics researchers. States should consider how third parties might get access to anonymized datasets for research purposes, with strict privacy protections.”

For most other scenarios, however, utilities *should* require affirmative consent before disclosing smart meter information to third parties.

Question 8. The broadband plan says the amount of data moving across the Smart Grid networks is modest today but is expected to grow significantly over time. No one seems to have a good handle at the moment on the Smart Grid’s future bandwidth needs. The plan makes four recommendations related to addressing the future spectrum needs for the Smart Grid. How do you see the spectrum needs for the Smart Grid evolving? Will it be a combination of commercial wireless spectrum for less secure communications and dedicated spectrum for mission critical communications?

Answer. There are over 3,000 utilities in the U.S. that serve customers across very different topologies and regulatory regimes. There is not a single solution or a “representative” network for the Smart Grid. Many utilities use a mix of commercial and private networks in the Smart Grid, and will continue to do so.

Although, generally speaking, electric utilities traditionally prefer to build and maintain private networks for mission critical communications, some utilities *do* use commercial networks for mission critical communications today. Commercial networks can be made secure and resilient, as demonstrated by their use in the Federal Government (DOD, DHS, etc.). For some smaller utilities, the lack of internal networking expertise and personnel might have driven the decision to use commercial facilities.

Utilities will need greater communications across the grid, and many are increasingly using wireless technologies, which are often more cost-effective than wired facilities in reaching wide areas or distributed assets. These wireless networks including licensed commercial networks, licensed private networks, and private networks operating at power levels where FCC licenses are not required.

Dedicating spectrum for the Smart Grid would have benefits and disadvantages. Potential benefits include: (1) providing another mechanism for the Federal Government to drive national interoperability standards and best practices of cyber-security, privacy, and consumer data access, (2) vendor standardization and competition, which could lead to lower equipment prices or more functionality, and (3) a possible acceleration of smart grid deployments. Risks/disadvantages to dedicating spectrum include: (1) possible sub-optimal use of spectrum, (2) fewer applications and users on commercial networks to drive down the cost for all users, (3) the opportunity cost to the U.S. Treasury of not auctioning off the spectrum to commercial broadband users, and (4) a near-term effect of “freezing the market” while companies re-evaluate their Smart Grid technology road maps.

Developing a Smart Grid is national policy set forth by EISA 2007, and the NBP recommends that the Federal Government continue to explore the issue of providing spectrum, recommending that “NTIA and the FCC should specifically explore possibilities for coordination of Smart Grid use in appropriate Federal bands. Any new broadband network built in the identified spectrum should be required to meet standards of interoperability, customer data accessibility, privacy and security. Use of this spectrum should not be mandated, so that legacy systems are not stranded and that commercial, other shared networks and unlicensed wireless networks can be used where appropriate.”

It’s important to note that there are a variety of possible models that could be employed to provide spectrum to the industry, including a sharing of spectrum with Federal users, sharing with public safety networks (also recommended in the NBP), dedicating spectrum with specific build-out requirements, and auctioning spectrum for critical infrastructure uses (which includes the Smart Grid, but could also in-

clude natural gas and water management, among other). Market-based auctions pose some challenges for utilities, since approximately 30 percent of the power is delivered to customers through non-profit entities (co-operatives and municipals), and even among the investor-owned utilities, some have business model or service territory incompatibilities to participating in spectrum auctions.

Question 9. In January, NIST released its Framework and Roadmap for Smart Grid Interoperability. There was a short section that touched on models for smart grid information networks. It also discussed technologies for standards for smart grid communications infrastructure. There was nothing in the broadband plan on communications standards issues related to the Smart Grid. For example, one of the debates is whether the entire Smart Grid should be IP-based. Do you believe the Smart Grid should be IP-based end-to-end?

Answer. The NBP is technology-neutral and does not recommend one networking protocol over another for the Smart Grid. However, the NBP does stress the importance of open standards and uses the success of Internet Protocol (IP) standard as an example. The NBP notes that: “the NIST standards development process should continue to draw on lessons from the Internet. Open standards are critically important—Internet Protocol being a prime example.”

NIST has a Priority Action Plan (PAP) focused on the role of Internet Protocol (IP) in the Smart Grid. This is the proper forum for the architectural debates about how fast and how much IP can be incorporated into the Smart Grid. It is important to remember that the Smart Grid includes a wide variety of legacy utility communications systems, some of which are incompatible with IP networks.

Question 9a. Is there a reason where there was no recommendations relating to Smart Grid communications standards in the broadband plan?

Answer. Establishing and maintaining national Smart Grid standards is critical to the success of the Smart Grid (and is national policy under EISA 2007). The NBP did not offer specific recommendations to improve or change the NIST Smart Grid standards coordination process, but did stress the importance of the process and of Smart Grid standards. The NBP states:

“Standards are critical to the Smart Grid. For example, the faster NIST can accelerate market convergence toward a small number of appliance communications standards, the sooner manufacturers can offer smart appliances that communicate with the rest of the smart home. Standards will help ensure that the Smart Grid is “plug-and-play,” encouraging innovation by giving companies a large potential market for devices and applications and providing customers with the ability to use any of them to take advantage of the grid.”

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. JULIUS GENACHOWSKI

Question. While we work to bring new communications services to more Americans, New Jerseyans still lack basic TV coverage of local news and events. WWOR, New Jersey’s only high-power commercial TV station, has not adequately served the people of New Jersey and is operating under a license that expired almost 3 years ago. When will the FCC be in a position to act on WWOR’s renewal application and concerns about its local news coverage?

Answer. As you know, a petition to deny the license renewal application of WWOR has been filed with the Commission. The petition raises important issues about both the quantity and quality of New Jersey specific news provided by WWOR. The petitioner recently submitted additional information which currently is under review in the Media Bureau. I hope this matter can be concluded expeditiously.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK PRYOR TO
HON. JULIUS GENACHOWSKI

Question 1. I support the goals of the FCC’s recommendations regarding set-top boxes but I understand that the FCC’s proposal would unintentionally change the competitive landscape by favoring cable over satellite due to differences in system architecture. I am worried that the FCC’s television set-top box proposal will have a disproportionately negative impact on rural residents who rely on satellite delivered television. Do you plan on examining that situation further to ensure there are no unintended consequences of harming the consumer?

Answer. Yes, I agree that the Commission should consider differences in system architecture to ensure that consumers are not disadvantaged. To prevent any unintended consequences, the “Allvid” Notice of Inquiry recently adopted by the Commis-

sion includes particular questions to assure that the Commission's eventual course of action does not unfairly burden any subscription video provider. Specifically, the Notice of Inquiry seeks comment on network-specific functions that the Commission would need to consider as we develop our proposal. In addition, the Notice invites commenters to propose alternate methods that would help to achieve retail availability of smart video devices that can access subscription video services. The Commission will consider these comments carefully, and I am confident that this proceeding will conclude with a solution that benefits all subscription video providers, device manufacturers, and consumers.

Question 2. One of the recommendations in the National Broadband Plan is that the Federal Government should launch a National Digital Literacy Program that creates a Digital Literacy Corps, increase the capacity of digital literacy partners and create an Online Digital Literacy Portal. The plan cites the statistic that 22 percent of non-adopters claim a digital literacy-related factor as their main barrier. The rate of broadband adoption is low in my state. In addition to the recommendations in the National Broadband Plan, would incentivizing businesses to offer digital literacy programs in low-income areas be an effective mechanism to increase the adoption rate of broadband?

Answer. Digital literacy training can promote broadband adoption and help individuals and businesses gain the skills they need to compete in the 21st century economy. Private sector businesses play an important role in digital literacy in several ways. Businesses provide training to their own employees and support local and community efforts by creating digital literacy content and training materials, supporting employee volunteers who provide digital skills training to local community members or small businesses and providing financial assistance to non-profit groups who provide digital literacy training. These efforts can be particularly effective when they include trusted members of the community providing training to non-adopters in comfortable settings and should be encouraged.

Question 3. The plan recommended that all community colleges should be connected with high-speed broadband. A recent report from the Brookings Institution report states that, "Community Colleges present enormous opportunities for meeting national and economic goals." My state is home to 23 community colleges and I couldn't agree more that these institutions should have improved connectivity and access to greater technological resources as community anchor institutions. The Federal Communications Commission has indicated that it would require around \$350 million to fund broadband connections for community colleges. In your view, would a grant program be an effective mechanism to reach the goal of community college connectivity?

Answer. As you note, the National Broadband Plan recognized the important role that community colleges play in preparing students for their place in the 21st century workforce. As the Plan explained, Congress should evaluate the amount of funding necessary to connect all public community colleges with high-speed broadband after the awarding of funding through the Broadband Technology Opportunities Program. There may be many ways, including grant programs, to successfully allocate and distribute additional funding that can achieve the goal of improving availability of high-speed broadband at Community Colleges.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CLAIRE McCASKILL TO
HON. JULIUS GENACHOWSKI

Question 1. The National Broadband Plan proposes to use 2,345–2,360 MHz spectrum for the expansion of broadband wireless communications. That spectrum is adjacent to a band that aerospace companies use radio spectrum in the 2.3 GHz band for flight test telemetry. Has the FCC reviewed how test flights will be affected by this change? Can you provide any assurance that broadband wireless in the adjacent band will not cause interference to flight test telemetry?

Answer. FCC staff issued a public notice on April 2, 2010, inviting comment on the specific draft rules, including both the technical standards and interference resolution mechanisms to protect adjacent band services. The FCC staff has thoroughly analyzed the record, met numerous times with commercial Aeronautical Mobile Telemetry (AMT) stakeholders, and with the National Telecommunication and Information Administration (NTIA) which represents Federal AMT stakeholders. I am committed to working with our counterparts at NTIA to find a solution that adequately protects AMT operations.

Question 2. The biggest benefit that I see for broadband is the economic development and job growth that it can bring. Wiring towns and building infrastructure is

paramount to encourage growth in communities and is an investment that will pay off in the future. It will also make up more competitive with the rest of the world.

The Plan talks a lot about public-private partnerships to encourage economic development and job growth. That sounds great and I like the concept in theory—private companies have invested \$60 billion in broadband and have created hundreds of thousands of jobs, including tens of thousands in Missouri. It is clear that we can't have real growth without private investment buying into the Plan. But how do you envision this working? What sort of incentive do private companies have to enter into arrangements like this? Have you gotten interest from private companies? And are you concerned about overlap with existing programs and companies?

Answer. Private sector cooperation and investment are important for America to achieve continued growth and innovation. The importance of the private sector is one reason why the Plan emphasizes the benefits of creating public-private partnerships, particularly in the section dealing with economic opportunity. To date, the private sector has shown a willingness to collaborate with the Commission and other public institutions in these initiatives. Specifically, the Small Business Association (SBA) and its volunteer resource partner, SCORE, recently announced a partnership with 10 leading technology firms to provide digital literacy tools to small businesses across the country, as recommended in the Broadband Plan. The goal of this partnership is to leverage existing infrastructure and programs SBA and SCORE have in place, as well as leveraging existing expertise and resources that the private sector firms have in place. In this way, the Commission can seek to bring more resources to a broader array of companies and communities, while not duplicating past efforts or wasting resources. Moreover, the private sector firms stand to gain exposure for their products, a reputation for dedicated involvement in local communities, and a broad array of potential new customers as more businesses take advantage of broadband and its associated tools and applications.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. AMY KLOBUCHAR TO
HON. JULIUS GENACHOWSKI

Question 1. One of the most discussed aspects of the plan is the transition of spectrum from broadcast television to wireless broadband. Many of my constituents, especially those in rural areas, are worried that they may lose access to over-the-air television signals. If the broadband plan recommendations go through, what will this mean for consumers' ability to access broadcast television?

Answer. If the broadband plan's recommendations for the broadcast TV spectrum are implemented, consumers will continue to access broadcast television using the same receivers and antennas that they are currently using. In some cases, depending on how a market is repacked, viewers might need to obtain new antennas in cases where local stations would: (1) re-locate to a new transmitter at a site farther away or (2) move to low VHF channels (channels 2–6) and a viewer's antenna does not already include a capability for effective reception of low VHF signals.

Broadcasters will have the option of choosing how to best serve their viewers, including strengthening their financial basis by reducing the amount of spectrum they are using while continuing to provide their own unique programming content over the air by sharing a channel with another station. Channel sharing by two or more stations would not require consumers to use additional equipment; the multiple stations would be received as multicast streams with existing receivers. Viewers would, of course, need to re-scan their digital television receivers and converter boxes to be able to view stations on their new channels after the channel re-packing was completed. We anticipate that various analyses will need to be performed and considered through rule making. However, it is reasonable to anticipate that few, if any, changes in the TV allotments will be needed in most rural areas.

Question 1a. While it is clear that wireless broadband needs additional capacity, how can we be sure that broadcast television remains viable?

Answer. Participation in the channel sharing program would be voluntary, as would any decision by a station to vacate its channel pursuant to an incentive auction. In addition, we will make sure that there are sufficient spectrum resources for broadcast stations to continue to operate in a viable manner. We also intend to work with the broadcast television industry throughout the spectrum recovery process and to address their concerns in the various actions that we will take.

Question 2. Several billion dollars was recently spent on the converter box program to ensure that no viewers were disenfranchised as a result of the digital transition. Will they still be able to access over-the-air television and get a strong signal?

Answer. The digital television converter boxes would continue to function to provide service from over-the-air signals after the broadcast TV spectrum is re-packed. The available television stations may be on different channels in some cases, but this could be handled through rescanning of the existing converter boxes (or TV receivers) and consumer education. Signal strengths would only be affected in cases where a broadcast station relocated its transmitter and/or combined to share a channel with another station whose service area was different from its own; such cases could result in an increase or a decrease in service area, or a change in service area with little to no net change in coverage area. Any potential impact on consumer reception of TV signals will need to be considered carefully through rule making and minimized to the extent possible.

Question 2a. Will they have to purchase new equipment or antennas?

Answer. Consumers will generally not need to purchase any new equipment to continue to receive television signals off-the-air if stations are re-packed to new channels. As indicated above, a new antenna might be needed if a station in a viewer's market were to relocate to a channel in the low-VHF range (channels 2-6) and the viewer's antenna did not already include the capability for effective reception of those channels.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO
HON. JULIUS GENACHOWSKI

Question 1. Mr. Genachowski, I am pleased that the National Broadband Plan includes recommendations for tackling the digital divide facing our Nation's Tribal lands, where less than 10 percent of residents have access to broadband.

I know you understand the severity of this problem, and I want to thank you for your leadership in addressing this challenge. I strongly support the Broadband Plan's recommendation to establish an Office of Tribal Government Affairs at the FCC to improve cooperation and coordination with Tribal leaders on a government to government basis. I also support efforts to transition the Universal Service Fund for telephone to a "Connect America Fund" for broadband. However, when transitioning to a Connect America Fund, how will the Commission ensure that this reform effort addresses the unique connectivity needs of Indian Country, where the current Universal Service Fund has not yet achieved universal telephone service?

Answer. The National Broadband Plan contains several recommendations to address the disparity existing in Indian Country. It gives us a roadmap for increasing broadband deployment and adoption in unserved or underserved areas, including isolated Tribal lands. The availability of broadband service also means the availability of quality telephone service in these areas.

The Commission has taken the first critical step by beginning the process of converting the Universal Service Fund over time to support broadband, which will free up more resources to build modern communications networks including on tribal lands. On April 21, 2010, the Commission adopted a notice of inquiry and notice of proposed rulemaking to examine near and longer-term processes to target funding toward new deployment of broadband networks in unserved areas while considering final rules to implement a new Connect America Fund that will efficiently provide universal service support for broadband and voice services. The Commission looks forward to receiving substantial input for this record from tribal governments, so Commission staff can understand and account for unique circumstances present on tribal lands.

Also within the second quarter of this year, the Commission intends to launch the new Office of Native American Affairs and the Native Nations Broadband Task Force. These initiatives should allow more efficient government-to-government relations with tribal governments, and the means to address more effectively the full range of Native American issues. The National Broadband Plan also recommends creating a tribal seat on both the Federal-State Joint Board on Universal Service and on the Universal Service Administrative Company board of directors, and the creation of a Federal-Tribal Broadband Initiative consisting of tribal leaders and officials from across all Federal agencies. I strongly support all of these initiatives, and will work hard to put them in place to enhance government-to-government interaction with tribal bodies.

The remote nature of some tribal lands has prevented the residents of those areas from gaining even basic telecommunications services. The Commission needs better data on these regions, so it plans to issue a broadband data rulemaking proceeding toward the end of this year, and coordinate with Native American governments to enhance data collection on tribal lands. The Commission also intends to issue a spectrum on tribal lands rulemaking proceeding during the fourth quarter of this

year to examine increasing mobile opportunities in Native American communities, and follow with a rural health care reform rulemaking proceeding with an eye toward bringing access to world-class healthcare for tribal and remote regions.

Throughout the Commission's activities implementing the National Broadband Plan, I intend to keep a watchful eye on how our actions benefit the most remote and unserved regions. I look forward to expanded and enhanced coordination with tribal governments, and full participation from tribal representatives and stakeholders in this major effort, so we can be assured of addressing the disparity in communications services that has existed on many tribal lands.

Question 1a. What resources or funding would the proposed "Tribal Broadband Fund" need to meet the goal of universal broadband service on our Nation's Tribal lands?

Answer. Given the paucity of data regarding broadband deployment and adoption on Tribal lands, we do not yet have a clear sense of the required funding levels for the Tribal Broadband Fund. Submissions from NCAI and other Tribal entities recommend establishing the Tribal Broadband Fund on the level of \$310 million. However, the full cost of deploying broadband service to all Tribal lands has been estimated to range anywhere between \$1.2 billion to \$4.6 billion. The Commission will work with other Federal departments and agencies to improve data-collection on Tribal lands so that we can develop an accurate assessment regarding the funding needs of Indian Country.

Question 2. The National Broadband Plan recommends that the Rural Utility Service (RUS) make a priority of issuing Smart Grid loans to rural electric cooperatives. These rural cooperatives operate 42 percent of our Nation's distribution infrastructure. The RUS has its roots in President Franklin Roosevelt's rural electrification program of the 1940s. Given that the agency today already supports electric and broadband service in rural America, having RUS support Smart Grid deployment makes sense to me. Could you expand on the National Broadband Plan's brief recommendation number 12.10 regarding RUS loans for Smart Grid?

Answer. As a major lender to rural electric cooperatives, the Rural Utility Service (RUS) has an opportunity to bring the benefits of the Smart Grid to rural America. By some statistics, rural electric cooperatives are ahead in selected Smart Grid applications. Smart Meters are an example; it became cost effective to automate meter reading sooner in rural communities, where long distances made it more difficult or costly to read meters. Advanced metering penetration within rural electric cooperatives has grown quickly, having increased from 3.8 percent in 2006 to 16.4 percent in 2008. In other areas, however, rural electric cooperatives reportedly lag in their adoption of Smart Grid applications compared to larger investor-owned utilities. In this respect, RUS has an opportunity to help rural America catch up.

In FY 2009, RUS disbursed 209 electric loans and loan guarantees totaling \$6.6 billion; the total RUS electric loan portfolio was over \$40 billion. Although the RUS has not provided the NBP exact numbers, the majority of these loans were for traditional grid improvements, not Smart Grid. RUS has the opportunity to fund more deployments of Smart Grid, and to encourage adoption of best practices in cybersecurity, privacy, and data accessibility.

In a few cases, electric cooperatives are building broadband networks to offer retail broadband services in addition to serving as a smart grid network. The NBP encourages RUS to continue to fund these innovative projects.

Question 3. The National Broadband Plan makes clear the importance of competition in broadband markets. The Plan highlights how wireless broadband providers may emerge as important competitors to wireline and cable broadband providers. However, some of the largest providers of DSL and fiber to the home broadband also have a major presence in the mobile broadband market. How will the FCC help ensure that consumers benefit from robust competition in broadband markets that lowers prices and encourages investment in new technologies?

Answer. The National Broadband Plan recognizes that the Commission will have to pay particular attention to its competition policies. For instance, the Plan recommended and the Commission recently embarked on policy changes regarding mobile roaming, to allow smaller competitors the ability to compete by roaming on larger carriers' networks in some instances. Similarly, the Commission plans to review its wholesale competition policies to ensure that investment incentives are balanced against the need to ensure competition for broadband services.

Question 3a. How will rural Americans benefit from lower broadband prices and better service if where they live is served by just one provider?

Answer. While some areas may not see as much competition as others, many of the proposals we have advanced would lower the costs for new entrants to deploy networks further into rural America. Additionally, the Commission has proposed

changes to the way in which the universal service program will disburse support for broadband networks in rural and high-cost areas of the country. Such changes would include speed and service quality standards.

Question 3b. How will the FCC increase transparency in broadband markets for consumers with respect to data on availability and price of broadband service, as briefly discussed in the Plan's recommendation 4.2?

Answer. The Plan sets forth recommendations to increase transparency in the retail broadband market. Doing so should encourage broadband service providers to deliver better value to consumers through better services.

In particular, the Plan includes four recommendations to increase transparency:

- The Commission should, in coordination with the National Institute of Standards and Technology (NIST), establish technical broadband measurement standards and methodology and a process for updating them. The FCC should also encourage the formation of a partnership of industry and consumer groups to provide input on these standards and this methodology.
- The Commission should continue its efforts to measure and publish data on actual performance of fixed broadband services, and should publish a formal report and make the data available online.
- The Commission should issue a Notice of Proposed Rulemaking to determine appropriate disclosure obligations for broadband service providers, including disclosure obligations related to service performance. These obligations should include simple and clear data that a "reasonable consumer" can understand, while providing more detailed disclosure for more interested parties such as tech-savvy consumers, software developers and entrepreneurs designing products for the network.
- The Commission should develop broadband performance standards for mobile services, multiunit buildings and small business users.

The Commission has already begun implementing these recommendations and has launched "The Consumer Broadband Test" (currently in beta) to enable consumers receive real-time information about the quality of their broadband connections. Additional information on the Consumer Broadband Test, including the ability for consumers to test their broadband speed, is available at <http://www.broadband.gov/qualitytest/about/>.

Moreover, the Commission's Broadband Action Agenda indicates that the Commission will consider a Notice of Proposed Rulemaking to implement the Plan's transparency and disclosure recommendations in the third or fourth quarter of 2010.

Question 4. Rural wireless providers in my state tell me that customers cannot always use their smart phone's mobile broadband features when roaming outside their home provider's coverage area. This is due to the difficulty of companies always coming to an agreement on reciprocal data roaming arrangements. How will the FCC address data roaming issues—discussed in the Plan's recommendation number 4.11—so that these rural wireless companies can fully serve their customers, who often live in remote areas?

Answer. In April, the FCC sought additional comment on whether to extend automatic roaming obligations to mobile data services. Comments are due June 14, 2010, and reply comments are due July 12, 2010. I look forward to reviewing the record and working with my fellow Commissioners to determine, in an expeditious manner, the path forward that best serves American consumers with a focus on the importance of data roaming for rural Americans.

Question 5. The National Broadband Plan highlights how set top boxes can become more effective gateways to the Internet, especially for those who may have cable or satellite television but no computer at home.

However, I have heard some concerns from satellite television providers that the set top box technology they use is not as suitable as similar cable devices for becoming a new, standardized gateway to the Internet. This is potentially more important for rural Americans who live in areas served only by satellite TV. How will the FCC address this concern when moving forward with efforts to "open up" TV set top boxes as a way to promote Internet access for more Americans?

Answer. I understand your concerns and the Notice of Inquiry recently adopted by the Commission regarding devices used by consumers to select and enjoy video programming is designed to ensure that our actions serve all Americans who subscribe to television services. The Commission's goal is to enable a cable subscriber in Albuquerque to move to Pie Town (or any other area of New Mexico) and subscribe to satellite service using the same smart video device. Specific questions are included in the Notice of Inquiry to assure that the Commission's course of action

does not unfairly burden any subscription video provider based on its delivery method and system architecture. In particular, the Notice of Inquiry seeks comment on network-specific functions that the Commission would need to consider as we develop our proposal. The Notice also invites commenters to propose alternate methods that would help us achieve retail availability of smart video devices that can access subscription video services. The Commission will consider these comments carefully, and I am confident that this proceeding will conclude with a solution that benefits all subscription video providers, device manufacturers, and consumers.

Question 6. Chairman Genachowski, everyone seems to agree that spectrum is a scarce and valuable resource that we must use wisely to allow consumers to benefit from current and new technologies, meet the needs of public safety agencies, and preserve our national defense capabilities. In the FCC's efforts to promote more efficient use of limited spectrum resources, how will the agency protect the quality and utility of those spectrum bands that may become more crowded in the future?

Answer. The manner in which spectrum is allocated, licensed (or unlicensed) and made available for use, and how interference is defined, disputes are adjudicated, and band-sharing is administered, will have a profound impact on how the wireless marketplace develops. The Commission is careful to evaluate technical considerations, including reducing the potential for interference, prior to allocating or licensing spectrum. Commission staff works closely with Federal partners, commercial licensees and industry to identify and address concerns—and corresponding solutions—in advance. We support measures that promote the efficient use of spectrum and seek to take advantage of technical advancements, such as dynamic spectrum access. We will continue to work closely with Federal partners, licensees, and unlicensed users and consumers to determine what will work best.

Question 6a. For example, how will the FCC ensure that new mobile technologies do not interfere with satellite radio service, which relies on sensitive antennae for picking up distant signals?

Answer. As you may be aware, Sirius-XM asserts that mobile devices transmitting continuous video from a vehicle in the wireless communication service (WCS) spectrum will cause harmful interference to satellite radio reception in nearby vehicles. Conversely, the WCS industry is concerned that unnecessarily conservative technical constraints will impede its ability to effectively provide mobile video, data, and voice service to the public.

The FCC is sensitive to the importance of maintaining the quality and service levels of satellite radio. Accordingly, the stringent rules the FCC engineering staff is recommending are designed to prevent harmful interference to the satellite radio service and quickly remedy interference if it should occur. Recently, a public field test was performed by the trade association representing the majority of WCS licensees (WCS Coalition). In that test, a device representative of that which would be sold to consumers was used to transmit data at rates that would support file transfers or video uploads from the user device. Other vehicles equipped with Sirius-XM radios drove or parked next to the WCS-equipped vehicle. Sirius-XM participated in this demonstration and it was open to the public and was witnessed by about a dozen FCC engineering staff. Interference received by SDARS receivers under this demonstration was insufficient to cause the loss of satellite radio signal for more than an inconsequential interval.

To ensure the most complete and specific participation and analysis possible, Commission staff put on public notice for comment by the parties and the public detailed proposed rules that were informed by the observations at the demonstration. The proposed rules include technical and operational restrictions for WCS and a requirement that WCS licensees cooperate in good faith in the selection and use of new stationsites and new frequencies to reduce interference and make the most effective use of the authorized facilities. Under the proposed rules, licensees of stations suffering or causing harmful interference must cooperate in good faith and resolve such problems by mutually satisfactory arrangements. We will be further guided by the specific information and arguments submitted in response to those proposed rules to ensure the continued reception of satellite radio service by the public.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK WARNER TO
HON. JULIUS GENACHOWSKI

Question 1. There has been a great deal of discussion about the possible reclassification of broadband services under Title II of the Communications Act. I recognize the FCC is considering multiple options in response to the ruling and I think it is important for consumers to be able to continue enjoying all the Internet has to offer. Do you think it is possible to institute a technology-neutral regulatory framework

that includes nondiscrimination protections and provides for reasonable network management?

Answer. Yes, but the Commission must carefully consider the legal framework on which it implements those protections. The decision of the United States Court of Appeals for the District of Columbia Circuit in *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010), casts serious doubt on whether the legal framework the Commission chose for broadband Internet services nearly a decade ago is adequate to achieve core broadband policies, which prior Commissions thought they had legal authority to implement. To confront this challenge, I have shared with my fellow Commissioners a draft Notice of Inquiry for their consideration at the Commission's June 17 Open Meeting. This Notice would initiate an agency proceeding to seek public comment on how the Commission should best address the challenge that *Comcast* has handed us. It would seek comment on all options, and invite any ideas for how the Commission should proceed, including: maintaining the current "information service" classification of services such as cable modem and DSL Internet access; classifying broadband Internet connectivity service as a "telecommunications service" to which all the requirements of Title II of the Communications Act would apply; and a "third way"—similar to the highly successful approach that has been used for cell phone services since 1993—under which the Commission would identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service and forbear from applying all provisions of Title II other than the small number that are needed to implement fundamental universal service, competition, and consumer protection policies. As you know, Chairmen Rockefeller, Waxman, Kerry, and Boucher have announced they will start a process to develop proposals to update the Communications Act. I welcome that process, and the Commission stands ready to serve as a resource to Congress as it considers legislative changes in this area.

Specifically on open Internet issues, we will continue to work with stakeholders to find the best approach to preserving the open Internet, and Commission staff is currently reviewing the tens of thousands of comments in the Open Internet proceeding. We look forward to reviewing the responses generated by the Notice of Inquiry on our legal framework for broadband as well.

Question 2. Is it possible to accomplish this under the provisions of the 1996 Act or have we come to a point where Congress should start considering updating telecommunications law to create a better system that incents business development, provides for reasonable network management—where like forms of traffic are treated similarly—and also maintains open access to the Internet for consumers?

Answer. As you know, Chairmen Rockefeller, Waxman, Kerry, and Boucher have announced they will start a process to develop proposals to update the Communications Act. I welcome that process, and any new ideas that others may propose to address this issue, and the Commission stands ready to serve as a resource to Congress as it considers legislative changes in this area.

Question 3. Although I have always believed all Americans should have access to broadband, I'm also concerned about broadband affordability. Commerce Department data shows that while the broadband adoption rate is just 64 percent, availability is much higher—95 percent of U.S. households have access to broadband. Do you think the plan does enough to provide affordable service to Americans? Is it enough to just expand the existing Lifeline program and to build out more services?

Answer. The National Broadband Plan recommends significant changes be made to the Lifeline and Link Up universal service low-income programs that would greatly enhance broadband affordability. Currently, Lifeline discounts offset eligible low-income consumers' recurring monthly telephone charges, while Link Up discounts reduce eligible low-income consumers' one-time telephone connection/installation charges. If both Lifeline and Link Up discounts are expanded to apply to service packages that include broadband, as the National Broadband Plan recommends, eligible low-income consumers would be eligible for discounts for both recurring monthly charges and installation charges for broadband service. Specifically, the National Broadband Plan recommends that: (1) the Commission and states should require eligible telecommunications carriers to permit Lifeline customers to apply Lifeline discounts to any service or package that includes basic voice telephone service; (2) the Commission should integrate the expanded Lifeline and Link Up programs with other state and local e-government efforts; and (3) the Commission should facilitate pilot programs that will produce actionable information to implement the most efficient and effective long-term broadband support mechanism.

Question 3a. Completing the infrastructure build out is very important to me, but should we be thinking more innovatively in terms of long-term service affordability?

Answer. The National Broadband Plan recommends expanding Lifeline discounts—which currently offset eligible low-income consumers’ recurring, monthly telephone charges—to include discounts for service packages that include broadband. This expansion of Lifeline discounts to broadband offerings, if adopted by the Commission, would help ensure that broadband service is affordable on an ongoing basis to eligible low-income consumers. Additionally, the National Broadband Plan recommends that the Commission integrate the expanded Lifeline program with other state and local e-government efforts which may provide low-income consumers with additional ongoing broadband discounts.

Question 4. As a former Governor who helped bring more broadband to Virginia, the issue of improving rural coverage is a priority for me. Coverage has improved in rural Virginia over the last 10 years but the broadband plan does not appear to address the dead spot issue, which is a huge investment barrier for wireless carriers. What should we be doing in rural areas with spotty coverage, particularly given the problem in using and sharing data service? These spotty areas normally have lower tier data speeds, not up to par with those available in urban areas.

Answer. I think that there are a number of steps that we can take to address these issues in rural areas. Rural areas often present special and unique challenges due to environmental or other factors, such as access issues, or topography. Often the biggest challenge in deploying networks in rural areas is cost, due to greater distance between facilities and very low population density over which to spread the cost of buildout.

The Commission has already put in place two initiatives that should provide more information regarding the scope of “spotty service” and “dead spots” or “dead zones” with respect to broadband services. The Consumer Broadband Test (Beta) and the Broadband Dead Zone Reporting Form are now available via the Commission’s broadband website. The purpose of the Consumer Broadband Test (Beta) is to give consumers and the Commission additional information about the quality of their broadband connections and to create awareness about the importance of broadband quality in accessing content and services over the Internet. The Commission will be able to use the data collected from the Consumer Broadband Test (Beta), along with submitted street addresses, to analyze broadband quality and availability on a geographic basis across the United States.

Additionally, consumers have the ability to report dead zones through the Broadband Dead Zone Reporting Form, which provides interested parties with the opportunity to voluntarily participate in the FCC’s effort to pinpoint areas in the United States where Americans are unserved or underserved by broadband access.

The National Broadband Plan also recommends spectrum access models that could be beneficial to rural deployment, including a new contiguous band for unlicensed services. Just as rural WISPs have been able to successfully deploy affordable Wi-Fi networks in their communities, more unlicensed spectrum may allow for greater bandwidth and coverage using similar models. Also, the Plan recommends the creation of a Mobility Fund to provide one-time support for deployment of 3G networks, to bring all states to a minimum level of 3G (or better) mobile service availability.

In addition, the Plan recommends a number of steps to make sure sufficient microwave spectrum is available to help meet current and future needs for backhaul. One of the factors affecting the cost of rural buildout is the cost of backhaul to carry traffic between facilities. Rural carriers in particular are making increasing use of microwave links for backhaul. The Plan recommends revising the Commission’s rules to allow for spectrum sharing among various point-to-point services where technologically feasible in order to increase the amount of spectrum available for backhaul by facilitating the efficient use of spectrum by multiple, compatible users. Further, the plan recommends revision of the technical rules for microwave services to allow increased flexibility, for example by modifying minimum throughput rules to allow for modulation techniques that would increase range. While I am heartened by an increasing number of technological solutions to increase the deployment of broadband and the quality of that deployment in rural areas, it is critically important that we pursue all possible avenues to facilitate quality broadband service in rural areas.

Question 4a. The plan gives the government 10 more years in which to devise a plan to build a public safety network. Can we be more aggressive in deploying this much-needed network?

Answer. The Commission has begun implementing the Plan’s comprehensive strategy for building out a nationwide interoperable public safety wireless broadband network. We recently established the Emergency Response Interoperability Center (ERIC) and the Commission currently has under consideration a

waiver order that would enable early deployments in the public safety broadband spectrum. In upcoming months, the Commission will undertake a series of rulemakings that will address roaming and priority access, auction of the D Block, and other elements of the Plan's comprehensive strategy. The Commission is committed to following the aggressive schedule we have set to ensure that our Nation's first responders soon have the nationwide network they deserve.

Question 4b. Are you optimistic that we will have a nationwide interoperability standard in place before we try to build out a nationwide system? It seems like this is a prerequisite if we want to make sure first responders are able to communicate with one another, but it's also disappointing that 9 years after 9/11 we still have not worked out a standard or built the network.

Answer. The Commission has already taken important steps to promote interoperability on the public safety broadband network. Under my proposed Order addressing the public safety broadband waivers, the Commission will require states and localities engaged in early deployments to use a common air interface and to adhere to an initial set of interoperability requirements developed by the recently established ERIC. These requirements will be further refined as ERIC develops a more detailed interoperability framework, which will ensure seamless communication on the nationwide network from the start of its development.

Question 5. Another issue that has been raised by public safety groups relates to priority access to the network in times of crisis. Some in the public safety community seem to be very concerned that under the FCC's plan, priority access may not be provided when it is needed most. How would you respond to these concerns?

Answer. Under the Plan, public safety agencies will have full use of the 10 MHz of dedicated 700 MHz spectrum that has already been allocated for public safety broadband services. This spectrum will form the foundation of the nationwide public safety broadband network, and will always be available to public safety for its highest-priority communications. In addition, the Commission will soon commence a rulemaking to ensure that public safety users can obtain quick and reliable roaming and priority access to commercial broadband networks in major emergencies where additional capacity may be required. Commercial 4G technologies can support a variety of newer forms of priority access that can fully meet public safety needs in such emergencies, far beyond anything possible on traditional circuit-switched networks that offer Wireless Priority Service. These 4G technologies also can enable public safety users to prioritize their own traffic more effectively, to ensure that the most vital communications are given the highest priority.

Question 6. The FCC also included some significant language in the broadband plan regarding the need to fulfill one element of the 1996 Act by providing greater competition in the set-top box market. Why do you think it is important to the deployment and use of broadband?

Answer. Innovation in the communications device and application market has driven Internet connectivity and use since the days of dial-up access. Since the early 1990s, computer hardware and software have become more sophisticated and capable of handling higher data rates and web browsers have provided more intuitive user interfaces, both of which have led consumers to subscribe to Internet services and use increasing amounts of data. More recently, innovative mobile devices have increased the adoption and use of wireless broadband. Increased competition in the set-top box market will lead to innovative internet-connected devices that consumers can connect to their televisions, thus encouraging further adoption and use of broadband. Indeed, consumer demand for online video already is beginning to increase, and consumers are showing interest in devices that can access that video over a broadband connection. For example, Netflix recently reported that 55 percent of its 14 million subscribers streamed more than 15 minutes of a movie or television show in the first quarter of 2010, up from 36 percent last year—each of those subscribers accesses that video over a broadband connection. While these numbers are encouraging, they pale in comparison to the more than 95 million households that subscribe to multichannel video services. Unfortunately, a combination of technical and economic factors has discouraged competition in the subscription video device market, which makes it difficult for companies to introduce competitive innovative video devices that appeal to those 95 million households. If the Commission can encourage retail competition for devices that can access subscription multichannel video services, device manufacturers will begin to offer retail products that integrate traditional and online video content. Consumers who purchase those devices specifically for the subscription video also will want to access the full array of services that their devices can provide, which will encourage broadband adoption and use.

Question 7. Intellectual property protections do not appear to be clearly discussed in the broadband plan. Does the FCC intend to look at these issues and how might

these issues intersect with privacy concerns and ISP content management or network management issues?

Answer. Under the Communications Act, the FCC has a limited role with respect to intellectual property policy, but we recognize that our actions can affect the transmission of intellectual property over communications networks. Our rules must respect the careful balance Congress has created between creating strong incentives for creators to create and disseminate their works online, and promoting the lawful use of copyrighted works and protecting consumers' privacy rights. For example, Open Internet principles only apply to lawful content, applications, and services—not to activities like unlawful distribution of copyrighted works, which has serious economic consequences. The enforcement of copyright and other laws and the obligations of network openness subject to reasonable network management can and must co-exist.

Question 8. The plan lays out an aggressive timeline for the spectrum components. How do you intend to adhere to the timelines you laid out and when do you expect to complete the final rules for TV white space devices?

Answer. We are currently taking the steps necessary to prepare a decision on the white space petitions for reconsiderations this summer. That action, which will complete our rules for TV white space devices, is part of our Broadband Action Agenda plan.

Question 8a. Are you open to making changes to those rules which would provide more flexibility for rural broadband applications, such as higher power limits?

Answer. We are looking at all possibilities for providing more flexibility for rural broadband applications, including the option of allowing increased power limits that may facilitate service in rural areas.

Question 8b. Can this happen within the existing timeline?

Answer. We recognize that the timelines laid out in the NBP are aggressive, and we will need the support of the full Commission, as well as Congress and other Federal, state and local agencies, and industry, in order to meet those deadlines.

Question 9. Regulatory certainty and regulatory flexibility are paradoxical concepts for entrepreneurs, but they are both critically important to the development of new technologies. What kind of assurance can you provide to entrepreneurs and investors who are looking to the FCC to carry out a pro-innovation agenda? For example, will there be increased opportunities for new dynamic spectrum access technologies and "smart" radios or other new technologies?

Answer. It is clearly apparent to all of us that the increasing demands for a finite amount of spectrum will necessitate ever more efficient ways to utilize spectrum, which will have to include new techniques, some already developing, some in development, and some yet to be thought of. Obvious among these is spectrum sharing by compatible devices or services, and fundamental to many such arrangements would be the utilization of "smart" radios, "smart" antennas and other "opportunistic" devices and technologies that can provide for instantaneous spectrum access where and when it is determined to be unused and available at any moment in time at a particular location and over a given transmission path. Nearly 10 years ago, the Commission recognized this direction in modifying its equipment rules to accommodate the earliest versions of software radios. More recently, developments of these technologies was fundamental to our adoption of new rules to open the Television White Spaces to new devices. We remain committed to continuing in this direction as these technologies evolve and made this is an important element of the National Broadband Plan.

We have already publicly committed to initiating a proceeding later this year to look further into ways of increasing opportunities for opportunistic use of spectrum. Initial ideas in this area include identifying frequency bands that could be used for innovation in cognitive technologies such as spectrum sensing and "smart" radios and examining ways to expand the use of geo-location databases to identify available spectrum indifferent frequency bands. In conducting this future proceeding, we are committed to working with the industry, including entrepreneurs, to strike the right balance between providing a level of certainty and allowing for innovation and flexibility to allow nascent technologies to flourish, while at the same time recognizing and protecting the services provided to consumers by incumbent operators and devices.

Question 10. In my experience, spectrum allocation debates can take a very long time to resolve. If broadcasters choose not to voluntarily relinquish spectrum, have you looked into alternative regulatory options such as spectrum sharing?

Which kinds of alternatives are you considering and how will the Commission balance the interests and expectations of current spectrum users with the demands of consumers and the emergence of new technologies?

How are you planning to facilitate or rely on negotiated solutions among the interested parties?

Answer. For the Plan to work, we don't need all, or even most licensees to voluntarily reducing use of UHF spectrum by going off the air, channel sharing or moving to the VHF band. If a limited number of broadcasters in a limited number of markets relinquish UHF spectrum, our staff believes we can free up a very significant amount of bandwidth. I believe, and the staff at the FCC believes, that a voluntary approach will work. We do not believe that it will come to the point where we have to examine other mechanisms.

To the second part of the question, one attractive feature of the voluntary approach is that it gives broadcasters additional financing options, which could help fund production of local news and other community-based programming, and/or investment in advanced broadcast technologies that would allow broadcasters to take advantage of emerging mobile and compression technologies.

To the third part of the question, transparent bidding open to all potentially interested parties is likely to find a better solution than deal-making that is limited to self-selected parties, which often are forced to act with less information than they would have in an auction. Direct negotiations among parties may have a role with respect to technical issues such as interference or coordination.

Question 11. Do you believe that the Commission should expand on Recommendation 5.5 in the plan? Does the FCC support the spectrum relocation process improvements outlined in legislation before Congress, namely H.R. 3019?

Answer. Recommendation 5.5 of the National Broadband Plan ("Plan") outlines some revisions for Congress to consider in the Commercial Spectrum Enhancement Act (CSEA) to facilitate relocation of incumbents from Federal spectrum that could be licensed for broadband deployment. These recommendations focus on expanding the definition of reimbursable costs to provide Federal agencies adequate incentives to vacate Federal spectrum.

I agree that the Federal spectrum relocation process can be improved, leading to more efficient use of available spectrum resources while enhancing wireless broadband availability. The CSEA funding mechanism was essential to the relocation of Federal incumbents from spectrum the Commission auctioned and licensed for Advanced Wireless Services ("AWS-1").

Any effort to build upon the success of the CSEA and implement possible improvements in the Federal spectrum relocation process, should consider the elements of a successful relocation framework. The objective of a successful framework should be not only to facilitate incumbent relocation from Federal spectrum and minimize for prospective bidders the uncertainty associated with the Federal relocation process, but also to treat incumbent spectrum users fairly and ensure that vital governmental functions are not adversely affected.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK BEGICH TO
HON. JULIUS GENACHOWSKI

Question 1. In your view, what changes to the Communications Act are needed for the FCC to effectively achieve the goals articulated in the plan?

Answer. The majority of the plan's recommendations to the Commission are plainly within the Commission's commonly understood authority. Our authority to implement some, however, is called into question by the recent decision of the United States Court of Appeals for the District of Columbia Circuit in *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010). The *Comcast* decision casts serious doubt on whether the legal framework the Commission chose for broadband Internet services nearly a decade ago is adequate to achieve core broadband policies, which prior Commissions thought they had legal authority to implement. To confront this challenge, I have shared with my fellow Commissioners a draft Notice of Inquiry for their consideration at the Commission's June 17 Open Meeting. This Notice would initiate an agency proceeding to seek public comment on how the Commission should best address the challenge that *Comcast* has handed us. It would seek comment on all options, and invite any ideas for how the Commission should proceed, including: maintaining the current "information service" classification of services such as cable modem and DSL Internet access; classifying broadband Internet connectivity service as a "telecommunications service" to which all the requirements of Title II of the Communications Act would apply; and a "third way"—similar to the highly successful approach that has been used for cell phone services since 1993—under which the Commission would identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service and forbear from applying all provisions of Title II other than the small

number that are needed to implement fundamental universal service, competition, and consumer protection policies. As you know, Chairmen Rockefeller, Waxman, Kerry, and Boucher have announced they will start a process to develop proposals to update the Communications Act. I welcome that process, and any new ideas that others may propose to address this issue, and the Commission stands ready to serve as a resource to Congress as it considers legislative changes in this area.

Question 2. Thank you very much for your strong support for deployment of broadband on tribal lands and the amount of unserved areas in the U.S. that are tribal lands. While we all support more broadband in these areas, many still lack basic phone service. How do you propose to balance the needs of expanding all telecommunications services to Alaska and other states that lack basic phone service?

Answer. The National Broadband Plan contains several recommendations to address disparities throughout the nation, including on tribal lands and Alaska Native regions. It gives us a roadmap for increasing the Nation's standing in broadband deployment and adoption, and for unserved or underserved areas, access to broadband also means quality telephone service for the first time in too many areas.

The Commission took the first critical step by beginning the process of converting the Universal Service Fund over time to fund modern communications networks that support broadband as well as voice service. On April 21, 2010, the Commission adopted a notice of inquiry and notice of proposed rulemaking to examine near- and longer-term processes to target funding toward new deployment of broadband networks in unserved areas while considering final rules to implement a new Connect America Fund mechanism that will efficiently support broadband and voice services. The Commission looks forward to receiving substantial input for this record from tribal governments, so Commission staff can understand and account for unique circumstances present on tribal lands, including Alaska Native regions.

The remote nature of some parts of Alaska has prevented the residents of those areas from gaining even basic telecommunications services. The Commission needs better data on these regions, so it plans to issue a broadband data rulemaking proceeding toward the end of this year, and coordinate with Native American governments to enhance data collection on tribal lands, including Alaska Native regions. The Commission also intends to issue a spectrum on tribal lands rulemaking proceeding during the fourth quarter of this year to examine increasing mobile opportunities in Native American communities, and follow with a rural health care reform rulemaking proceeding with an eye toward bringing access to world-class healthcare for tribal and remote regions.

Question 3. I commend your sensitivity to the difficulties of serving residents of Tribal Lands, including Alaska, following the FCC's long precedent of policies designed to address the unique and complex deployment challenges of serving these areas. Will you continue to work with me to ensure that FCC broadband policies recognizing the unique challenges of Tribal Lands are responsive to my constituents' needs?

Specifically I would like to you to carefully consider keeping the exemption from interim cap for tribal lands that was put in place for the high cost fund as the FCC moves toward a new model of support. I am very concerned about the impact the changes will have on the investment in Alaska infrastructure and the companies who work hard to deploy service to some of the most unserved areas of the Nation.

Answer. As we move forward with universal service reform, including possible changes to the interim cap on competitive eligible telecommunications carrier support, the Commission intends to consider unique circumstances present on tribal lands, including Alaska Native regions. Indeed, on April 21, 2010, the Commission adopted a notice of inquiry and notice of proposed rulemaking, the Commission specifically sought comment on whether there are any unique circumstances on tribal lands, including Alaska Native regions, that would necessitate a different approach.

Question 4. Under Recommendation 9.7, the Plan calls on the FCC to create an FCC Office of Tribal Affairs and a Tribal seat on the USAC Board. Are you able to give us a timeline of implementation of these specific actions?

Answer. Launch of the FCC's Office of Native American Affairs is targeted for June 2010. Adding Tribal representation to the USAC Board requires amendment of the Commission's rules.

Question 5. Many rural Incumbent Local Exchange Companies (ILECs) are concerned with the reform suggestions outlined in the National Broadband Plan. Can you direct me to where the plan discusses the level of high-speed broadband now available to customers served by rural Incumbent Local Exchange Companies (ILECs) vs. those served by Bell Operating Companies (BOCs) and other non-rural telecoms?

Follow-up: Can you ask the broadband staff to prepare this comparison? I anticipate that there is far greater deployment available in areas served by rural telephone companies because of the universal service system and regulatory framework applicable to the rural incumbents. I would like to make certain the Commission has those facts before them as we go forward.

Answer. The Plan, as well as a recent technical paper "The Broadband Availability Gap," provide data on the fraction of unserved housing units that are in areas served by a Bell Operating Company, a mid-size price cap carrier, and a rate of return carrier. The Plan estimated that:

- 52 percent of unserved housing units are in census blocks in which one of the three Regional Bell Operating Companies (AT&T, Verizon or Qwest) is the incumbent local exchange carrier;
- 15 percent of the unserved housing units are in census blocks where a mid-sized price-cap carrier is the incumbent provider; and
- One-third (33 percent) of unserved housing units are in census blocks where a rate-of-return carrier is the incumbent provider.

To measure broadband deployment progress, the Commission needs accurate, up-to-date data. Moreover, the Commission's Broadband Action Agenda includes opening a proceeding later this year to improve the data it collects on broadband deployment. At present, the data on availability provide very limited insight as to whether any one particular regulatory regime, which provides support for voice services, has had an impact on broadband deployment.

Question 5a. Do you believe that it is generally understood that investment in broadband compliant infrastructure in rural areas is driven by the contrasting regulatory regimes in place for rural ILECs and non-rural ILECS?

Follow-up: I think we all should have quantifiable information as we go forward with implementing this plan. With all the time and effort that your broadband staff has already undertaken, I hope it won't be difficult to provide us with a summary that demonstrates how extensive broadband high speed deployment has been in areas served by rural incumbent carriers subject to common carriage rate of return regulation compared to the broadband deployment in rural areas served by price cap companies providing high speed Internet as a non common carrier service.

Answer. As noted in the preceding answer, there are unserved communities in areas served by both price cap and rate of return carriers. Absent comprehensive reform, many communities in America will never have access to broadband because there is no private sector business case to serve these areas. Leaving some communities behind is not consistent with the country's long-standing goal of universal service. This digital divide exists today and will only get worse if the universal service system is not fundamentally reformed. Thus, comprehensive reform to the universal service system is necessary to ensure that all communities have access to broadband. The Commission looks forward to gathering more information through our rulemaking process to assist us in crafting the appropriate policies in this area.

Question 5b. If rate of return regulation for rural companies has resulted in rural areas obtaining significant high speed broadband availability but price cap regulation for BOCs has resulted in little deployment in the rural areas they serve, why does the report propose to end rate of return regulation when it is rate of return regulation that has had success in meeting the goals of high speed broadband deployment?

Answer. The National Broadband Plan sets forth a vision to provide broadband access to all Americans, regardless of where they live and regardless of the regulatory classification of their carrier. Both price cap and rate-of-return carriers, have made significant investments in broadband. As noted above, the Plan, as well as a recent technical paper "The Broadband Availability Gap," provide data on the fraction of unserved housing units that are in areas served by a Bell Operating Company, a mid-size price cap carrier, and a rate of return carrier. The Plan estimated that:

- 52 percent of unserved housing units are in census blocks in which one of the three Regional Bell Operating Companies (AT&T, Verizon or Qwest) is the incumbent local exchange carrier;
- 15 percent of the unserved housing units are in census blocks where a mid-sized price-cap carrier is the incumbent provider; and
- One-third (33 percent) of unserved housing units are in census blocks where a rate-of-return carrier is the incumbent provider.

As one critical step to achieve the goal of universal broadband, the Commission must reconfigure the current High-Cost Universal Service Fund, which is designed to support voice service, to a new universal service program, described in the Plan as the “Connect America Fund,” that will provide support for broadband networks capable of providing voice services. As part of this conversion, the Plan recommends moving rate-of-return carriers to incentive regulation. The Plan does not, however, specify the type of incentive regulation, such as price cap.

A shift from rate-of-return to incentive regulation advances both to the general goal of ensuring widespread deployment of broadband networks and the specific tool of universal service reform. Rate-of-return regulation was implemented at a time when monopoly providers offered regulated voice telephone service over copper wires in a particular geographic area. Such an era no longer reflects the reality of converging technologies and competition in the 21st century broadband world. Indeed, a growing number of rural carriers have voluntarily elected to convert to price cap regulation to become more efficient and competitive. Moreover, the conversion to incentive regulation could help limit growth in the legacy High-Cost Universal Service Fund while the Commission moves to adopt a more efficient and targeted funding mechanism for government support for broadband investment.

Incentive regulation could take many forms. Indeed, the majority of states have already recognized the benefits of moving to some form of incentive regulation—with over 30 states having already eliminated rate of return regulation for local rates. States have found it possible to craft regimes that provide the necessary stability for ongoing investment. The Commission is seeking comment on the recommendation in the Plan, including the proposal to move to incentive regulation. The Commission also asks parties to suggest other alternatives that would allow the Commission to achieve the National Broadband Plan goals of world-leading, affordable broadband service for all Americans. The Commission welcomes and encourages all interested parties to provide suggestions, data and recommendations in response to the Notice.

Question 5c. Why did the plan settle on the download speed of 4 MB (megabits-per-second) by 2020? It seems a bit modest for a goal.

Answer. The Commission analyzed consumer usage of broadband speeds to set an initial target of 4 Mbps of actual download speed and 1 Mbps of actual upload speed, which is quite aggressive. It is one of the highest universalization targets in the world. Many nations, such as South Korea and Finland, have already adopted short-term download targets around 1 Mbps. In addition, the 4 Mbps is comparable to the median speed received by residential consumers today, and what many consumers are likely to use in the near term, given past growth rates.

To ensure that consumers in rural areas receive broadband speeds comparable to urban areas, the Plan also recommends reevaluating this 4 Mbps funding target every 4 years and adjusting it as appropriate to reflect changing consumer use and demand to ensure that rural areas continue to receive service that is reasonably comparable to service in urban areas. Doing so will ensure that there is no digital divide in this country.

Question 5d. Does this goal provide a competitive benefit to wireless technology?

Answer. The Plan is technology and provider neutral. The Plan recommends that any provider that is able to meet the qualifications set forth by the Commission will be eligible to receive support to deploy broadband. The public and interested parties will have ample opportunity to comment and provide suggestions on what the criteria should be adopted to be eligible for distribution of support.

Question 6. The CLECs who serve rural Alaska communities have been investing in mobile services and bringing cell phones to regions of the state that previously were unserved. They are very concerned the transition away from the High Cost Fund. Under a current order from the FCC, the CLECs are exempted from a cap on the High Cost Fund. Will you look into the possibility of extending this exemption on tribal lands as you move forward on USF reforms?

Answer. In considering any universal service reforms, we will consider whether an exemption should be made for tribal lands, including Alaska Native regions, or any other region where unique circumstances necessitate a different approach. Indeed, in the universal service reform notice of inquiry and notice of proposed rule-making adopted on April 21, 2010, the Commission specifically sought comment on whether there are any unique circumstances on tribal lands, including Alaska Native Regions, that would necessitate a different approach.

Question 7. Many critics of the plan believe investment in networks will be chilled by the work of the National Broadband plan. Some people have expressed concerns that the Plan may produce the unintended consequence of chilling investment in these networks. Can you please address these concerns?

Answer. The National Broadband Plan sets forth recommendations that are designed to encourage, not discourage, investment in broadband networks. While I don't know the specific proposals that these concerns reference, the Commission intends to move forward in an open and data-driven manner with the goal of expanding and improving broadband networks, and removing barriers to innovation and investment throughout the Nation.

Question 8. I appreciate the push to bring the country to a 4G world—but the plan highlights that Chairman Rockefeller and my states lag behind in populations with access to a 3G network, with West Virginia 71 percent and Alaska with 77 percent covered. As you know, the remaining percentage will be the most difficult and costly to cover. Can you discuss some of the funding changes proposed for network build out? (Chapter 8.3)

Answer. As you have noted, building out networks on sparsely populated and/or remote areas can be very costly. Nonetheless, as a nation we need to ensure that no population is left out of the benefits that come with access to mobile broadband. The Plan proposes the creation of a Mobility Fund, as part of broader reforms of the Universal Service Fund. Without increasing the overall size of Universal Service Funding, the Plan recommends providing one-time support for deployment of infrastructure enabling robust mobile broadband networks, to bring all states to a minimum level of mobile availability. Bringing all states up to a national standard will help enable Americans in unserved areas participate in the mobile revolution. I have directed staff to prepare a specific proposal for a Mobility Fund for Commission vote this fall.

Question 9. I also appreciate the recognition that the FCC gives to the most under and unserved populations, tribal communities. I received many complaints in my office regarding the broadband ARRA programs and their perceived failure to accommodate the needs of tribal communities. For future grant programs under NTIA (BTOP) and Rural Utilities Service, do you have recommendations on how to improve the process for tribal communities?

Answer. The Commission is not involved with the evaluation or review of the Broadband Technology Opportunities Program (BTOP). Concerns regarding the BTOP process should be directed to NTIA.

Question 10. The Broadband plan notes that rural Americans are significantly less likely to subscribe to broadband Internet access than their counterparts in urban areas. As you may know, Alaska has many rural communities. What strategies will you use to close the gap?

Answer. Many of the adoption recommendations included in the National Broadband Plan are similar to those proposed in the first round BTOP application submitted by the University of Alaska for their Bridging the e-Skills Gap in Alaska program. For example, the Digital Literacy Corps, if funded, could provide digital skills training to a group of local rural residents, who, as trusted members of their communities, could help other residents understand the value of broadband and acquire the skills needed to navigate online environments. The Plan also recommends targeted awareness programs and a best practices clearinghouse, which would help rural communities share best practices and eliminate redundant efforts, both of which were included in the Alaska proposal. Additionally, the Plan suggests continuing support for state level initiatives, which could allow Alaska more ability to plan and implement programs specifically tailored to meet the state's needs and the unique adoption barriers faced by its citizens.

Low-income residents may also benefit from the plan's recommendation to expand low income Universal Service support to broadband, and Native Alaskans will benefit from recommendations designed to increase adoption and deployment of broadband on Tribal lands such as the Tribal Broadband Fund.

Question 11. In the Plan, the FCC shows that adoption on Tribal lands is extremely low because broadband has not been built out to these areas. In Alaska, we have many regions that are either underserved or not served at all. How do you plan to address this from both the wireline and the wireless perspective? Additionally, will you discuss how you believe the Commission should move forward in modifying the Tribal Land Bidding Credit (pg. 97 of NBP)?

Answer. As noted above, the National Broadband Plan aims to provide several tools to address disparities throughout the nation, including on tribal lands and Alaska Native regions. The Commission took the first critical step by beginning the process of converting the Universal Service Fund over time to fund modern communications networks that support broadband as well as voice service. On April 21, 2010, the Commission adopted a notice of inquiry and notice of proposed rulemaking to examine near- and longer-term processes to target funding toward new deployment of broadband networks in unserved areas while considering final rules to im-

plement a new Connect America Fund mechanism that will efficiently support universal access to broadband and voice services. The Commission looks forward to receiving substantial input for this record from tribal governments, so Commission staff can understand and account for unique circumstances present on tribal lands, including Alaska Native regions.

Recommendation 5.17 of the Plan outlines five specific actions to be undertaken as the Commission considers the unique spectrum needs of Tribal lands, which are intended to assist the development of wireless services. First, in connection with the recently launched Spectrum Dashboard, Commission staff is continuing to explore and implement improvements to the database that will assist in spectrum policy planning and decisionmaking, promote a robust secondary market in spectrum and improve communications services in all areas of the U.S., including rural, underserved and Tribal lands. As a first step, we are seeking to develop a search feature that would identify spectrum licensed on federally recognized Tribal lands.

Second, as you note, I have directed staff to explore changes to the Tribal Land Bidding Credit program. I have asked staff to prepare an NPRM for the 4th quarter of this year proposing rules to promote greater use of spectrum on Tribal lands in coordination with Tribal governments, including possible revisions to the Tribal Land Bidding Credit. In that regard, we would seek comment on possible improvements to our program for providing Tribal Land Bidding Credits, including modifications to facilitate Tribal access to spectrum on Tribal lands.

Third, we will explore establishing a Tribal Priority for wireless licenses covering Tribal lands. While the statutory and regulatory procedures for licensing wireless services are different in some respects from those applicable to broadcast stations, the Tribal Priority recently adopted for the threshold stage of FM radio allotment and AM radio licensing could be a model for establishing a similar priority in the wireless context.

Fourth, we will explore creating additional flexibility and incentives for build out of facilities serving Tribal lands.

Fifth, the Plan recommends expeditious resolution of pending petitions for reconsideration in the White Space proceeding and proceed with a Notice of Inquiry to consider higher power fixed operations in rural areas, which often include Tribal lands. I have directed staff to complete the final rules for TV white space devices by resolving outstanding challenges to those rules in the 3rd quarter of this year.

Several other aspects of the Plan propose action to address the need to ensure that services reach all parts of the country. Recommendation 8.3 proposes the creation of the Mobility Fund to provide onetime support for deployment of 3G networks, to bring all states to a minimum level of 3G (or better) mobile service availability. This proposal, along with proposals with respect to other mechanisms mentioned above, such as the Connect America Fund, will assist the build out of wireless services.

Question 12. Many Alaskans are concerned about rising monthly bills due to surcharges and line items that were not made clear to them when they signed up for service. What steps can the FCC take to improve transparency in billing?

Answer. In August 2009, the FCC released a broad Notice of Inquiry (NOI) as part of its Truth-in-Billing proceeding seeking information on opportunities to protect and empower American consumers by ensuring that consumers have sufficient access to relevant information about communications services. The *Consumer Information and Disclosure NOI* asked questions about the adequacy of information available to consumers at all stages of the purchasing process, including: (1) choosing a provider, (2) choosing a service plan, (3) managing use of the service plan, and (4) deciding whether and when to switch to a different provider or plan. The *Consumer Information and Disclosure NOI* asks these questions about all communications services used by consumers, including wireline and wireless, broadband, and video subscription services. The NOI also recognized that “access to accurate information plays a central role in maintaining a well-functioning marketplace that encourages competition, innovation, low prices and high-quality services.” (NOI at para. 5.) FCC staff are reviewing the record compiled in response to the NOI and considering appropriate next steps for protecting consumers.

Question 13. It’s alarming to me that the FCC has found that broadband providers often times don’t actually deliver the speeds they advertise. How can consumers make these important decisions when they don’t know what speeds they are signing up for?

Answer. The FCC also recognized the importance of consumer information to meaningful competition in its National Broadband Plan (NBP), stating: “Consumers need more information about the speed and overall performance of the [broadband] services they receive and of competitive offers in their area, and about the gap be-

tween actual and advertised speeds and the implications of that difference.” (NPB at p.44.) To provide consumers this necessary information, the NBP recommends that the FCC, in coordination with the National Institute of Standards and Technology, establish technical broadband measurement standards and a methodology and process for updating them. It also recommends that the FCC encourage the formation of a partnership of industry and consumer groups to provide input on these standards and this methodology. Further, the Plan recommends that the FCC continue measuring and publishing data on actual performance of broadband services and initiate a rulemaking proceeding to determine performance disclosure requirements for broadband. The FCC has posted on its website links to broadband speed measurement tools available free to all consumers from any location where they use broadband service, and FCC staff have begun work to implement the Plan’s additional recommendations. Further to the NBP recommendation, the FCC recently contracted with a third-party, SamKnows Limited, to begin measuring broadband speeds.

Question 14. The NBP (National Broadband Plan) notes that Americans in low-income households subscribe to broadband Internet at much lower rates than their more affluent counterparts, even though they adopt mobile and pay-TV services at nearly the same rates. Can you try to explain this difference? How is the Commission going to tackle this problem it?

Answer. An FCC survey conducted in developing the NBP identified three major barriers that keep non-adopters from getting broadband: (1) cost, (2) digital literacy, and (3) relevance. (NPB at 170.) In addition to outlining guiding principles for improving broadband adoption and utilization, the Plan made specific recommendations for addressing each barrier. The Plan’s recommendations for addressing the cost barrier include expanding the current Universal Service Lifeline Assistance and Link-Up America programs to make broadband more affordable for low-income households and considering free or very low-cost wireless broadband as a means to address affordability. In addition, ensuring competition and a well-functioning marketplace by providing all consumers with the information needed to make purchasing decisions may also help make broadband more affordable.

The FCC has developed an outreach and educational structure to reach targeted constituencies. These constituencies align with those highlighted in the NBP. We will be working with national, state and local governments and community organizations. Specifically, our targeted constituencies are African American, Hispanic, Senior, Rural and Tribal. While we are targeting these groups, we also are working with organizations that will aid us in lifting some of the adoption barriers, such as libraries, senior and community centers, schools and local organizations.

Question 14a. How does the FCC plan to promote innovation in content and online applications?

Answer. Promoting innovation in content and online applications is a key goal of the Commission’s ongoing Open Internet proceeding. I believe that high-level rules of the road to preserve the free and open Internet can help ensure that content and application innovation continues to flourish online. The Commission moved forward last month with a proceeding to promote innovation and consumer choice in the video-device marketplace, which will help foster more innovative content and applications, implementing a key recommendation of the National Broadband Plan. The National Broadband Plan contains a number of other recommendations to promote innovation in online content and applications, *e.g.*, regarding privacy, the smart grid, health IT, and online learning. The FCC is working to help implement those recommendations, either directly or by assisting other government agencies and stakeholders.

Question 15. Mr. Chairman, I wanted to bring your attention to the letter Senator Wicker and I sent to you last month regarding data roaming issues and the current open proceeding. Can you give us a more specific timeline on this moving forward proceeding?

Answer. In April, the FCC sought additional comment on whether to extend automatic roaming obligations to mobile data services. Comments are due June 14, 2010, and reply comments are due July 12, 2010. I look forward to reviewing the record and working with my fellow Commissioners to determine, in an expeditious manner, the path forward that best serves American consumers with a focus on the importance of data roaming for rural Americans.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO
HON. JULIUS GENACHOWSKI

Question 1. The Broadband Plan makes several references to the private sector investment that has been made to broadband networks and services. The document even goes as far to state that “due in large part to private investment and market-driven innovation, broadband in America has improved considerably in the last decade.”

Back in the Fall, the Commission concluded that a total investment for universal broadband availability for the Nation would range from \$20 billion to \$350 billion depending on the speed of broadband service.

In the Plan, the Commission concludes that in order to achieve the National Broadband Availability Target of broadband speeds of 4 Mbps download and 1 megabit-per-sec upload, the total cost would be approximately \$33 billion.

The Plan sets a goal of 100 million U.S. homes should have affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps by 2020. Can you pinpoint or elaborate on what the Commission has estimated as the required investment to achieve that goal?

Answer. The Plan’s goal for achieving affordable, actual download speeds of 100 megabits-per-second downstream and 50 megabits-per-second upstream to 100 million American homes by 2020 is ambitious but achievable. The 100-squared initiative will help ensure America’s global competitiveness in the 21st century. A widespread level of affordable high-speed connectivity will encourage innovators to develop the next generation of cutting-edge applications in the American market, for the American people.

The network deployment model developed and referenced in the Plan was aimed at estimating what areas of the country are currently “unserved” by broadband and calculating the level of investment that would be needed to serve those areas. The model was not developed with the purpose of estimating the investment that would be required to build 100 Mbps networks to 100 million households.

Question 2. One of the main goals of the Plan is to “maximize investment” but the document seems to be light on recommendations related to financial incentives such as tax credits to bolster capital investment in infrastructure.

Given the significant capital expenditures required to meet the Commission’s National Broadband Availability Target and 100–100 goal, why weren’t there more recommendations related to tax credit-based incentives? The plan made these types of tax-based proposals to Congress for Research and Experimentation (R&E) and telework practices.

Answer. The Plan includes a variety of recommendations to reduce costs and encourage private sector deployment in broadband networks and applications. The Plan has recommendations to encourage private sector investment to realize the 100 squared goal by, among other things, fostering competition, driving demand for increased network performance and lowering the cost of deploying infrastructure. These recommendations should help inform consumers about broadband performance, expand services and infrastructure, and reform access to rights-of-way to lower barriers to entry for firms. The Plan also encourages Congress to make the Research and Experimentation (R&E) tax credit a long-term tax credit to stimulate broadband research and development, which is a cost effective way to spur private sector research and investment in broadband networks and applications.

Question 3. The Plan also establishes six long-term goals to serve as a compass over the next 10 years. The first goal is to provide at least 100 million U.S. homes with affordable Internet broadband access with actual download speeds of at least 100 megabits-per-second and actual upload speeds of at least 50 megabits-per-second. Providing consumers, developers, and small businesses such high-speed broadband speeds will truly revolutionize the Internet as well as exponentially increase the benefits it provides—users will be able to leverage new and emerging high-bandwidth applications and services that aren’t available today or accessible with lower speeds.

But at the same time, the Plan acknowledges that broadband carriers are aggressively upgrading their networks to offer higher speeds and greater capacities. The Plan cites several network upgrades and expansions that are already planned or in the process of being implemented over next 2 to 3 years that will provide approximately 100 million homes with broadband speeds of 20 to 50 megabits-per-second and provide the building blocks to even faster broadband speeds in long-term. How will the Commission measure the effectiveness of this Plan as a catalyst for accelerating the investment that is currently underway or broadband deployment and adoption in general?

Answer. The Plan includes a variety of recommendations and benchmarks to track progress of broadband deployment and adoption. Implementing the Plan requires a long-term commitment to measuring progress and adjusting programs and policies to improve performance. The Plan's recommendations to monitor implementation include:

- a. Ensuring that the FCC quickly publishes a timetable of proceedings to implement plan recommendations within its authority;
- b. Publishing an evaluation of plan progress and effectiveness as part of the annual Section 706 Advanced Services Inquiry;
- c. Creating a Broadband Data Depository;
- d. Continue to utilize *Broadband.gov* as a public resource for broadband information; and,
- e. Publishing a Broadband Performance Dashboard with metrics designed to track broadband plan goals.

Also, as required by the Broadband Data Improvement Act, the Commission intends to conduct periodic surveys of consumers in urban, suburban, and rural areas in the large business, small business, and residential consumer markets to evaluate the characteristics of broadband service capability and adoption. These periodic national surveys will help track adoption rates over time, which can help measure the effectiveness of the Plan's proposals.

The Plan recommends that the Commission and the U.S. Bureau of Labor Statistics collect more detailed and accurate data on actual availability, penetration, prices, churn and bundles offered by broadband service providers to consumers and businesses, and should publish analyses of these data. The Commission's Broadband Action Agenda includes a proceeding later this year to improve the data the Commission collects on broadband deployment and adoption. By collecting more granular data over an extended time period, the Commission and other agencies can analyze the impact of programs and investment on broadband deployment and adoption.

In addition, the National Broadband Plan recommends Congress and Federal agencies promote third-party evaluation of future broadband adoption by including specific requirements and funding for program evaluation and funding to conduct in-depth assessments and longitudinal program assessment.

Question 4. One of the E-rate recommendations in the Plan is that the FCC should reexamine specific E-rate rules that appear to limit the flexibility of applicants to craft the most cost-effective broadband solutions based on the types of broadband infrastructure, services and providers available in their geographic areas. While more flexibility could possibly reduce the overall cost of broadband and increase bandwidth, there are concerns about maintaining the integrity of the program. The E-rate program has been very successful, well run, and established procedures for minimizing waste, fraud, and abuse. Can you elaborate on the FCC's plan with respect to reforming and enhancing the E-rate program but maintaining the integrity and ensuring that increasing flexibility doesn't open it up to more waste, fraud, and abuse?

Answer. In keeping with the National Broadband Plan's vision of improving and modernizing the universal service programs, the Commission is currently examining what is working well and what can be improved in the current E-rate program. Specifically, the Commission is considering several potential reforms that would cut red tape by eliminating rules that have not effectively served their intended purpose, while continuing to protect against waste, fraud, and abuse. For example, the Commission is considering streamlining the E-rate application process, providing greater flexibility for applicants to choose the most cost-effective and educationally useful broadband services. The Commission is also exploring ways to expand the reach of broadband to the classroom, including schools that serve populations facing unique challenges, such as tribal schools or schools for children with physical, cognitive, or behavioral disabilities. Additionally, the Commission is taking steps to make the E-rate program more user-friendly and is working closely with the Universal Service Administrative Company, which administers the E-rate program under the Commission's direction.

The E-rate program provides two "priorities" for discounting telecommunications services—Priority 1 for external telecommunications and Internet connections and Priority 2 for internal connections/wiring. The Plan recommends that the Commission develop ways that Priority 2 funding can be made available to more E-rate applicants. Given the advancements in information technology and more dynamic content and applications that teachers and students are utilizing, numerous schools are finding that traditional Priority 1 connections (typically T1/T3s) are not enough for

the growing demand and usage—that higher bandwidth connections are needed. Libraries have also conveyed the need for greater capacity due to increased patronage.

Question 5. The Broadband Plan makes numerous proposals related to the Universal Service Fund, in general. As you know, the Universal Service Administrative Company (USAC) is the independent, not-for-profit corporation designated as the administrator of the Federal Universal Service Fund by the FCC. Can you elaborate on how involved the Universal Service Administrative Company (USAC) was in assisting the FCC's development of these recommendations? Were USAC official active participants in discussions?

Answer. As the National Broadband Plan Team developed its recommendations, it obtained information and data from USAC, as necessary, regarding the operation of the existing universal service programs.

Question 6. The E-rate program provides two “priorities” for discounting telecommunications services—Priority 1 for external telecommunications and Internet connections and Priority 2 for internal connections/wiring. The Plan recommends the Commission develop ways that Priority 2 funding can be made available to more E-rate applicants. Given the advancements in information technology and more dynamic content and applications that teachers and students are utilizing, numerous schools are expressing that traditional Priority 1 connections (typically T1/T3s) are not enough for the growing demand and usage—that higher bandwidth connections are needed. Libraries have also conveyed the need for greater capacity due to increase patronage. How will the Commission balance the recommendation for increasing Priority 2 funding with accommodating for greater Priority 1 funding to meet the growing bandwidth needs of schools and libraries?

Answer. Funding under the E-rate program is essential to enable schools and libraries to maintain current levels of Internet connectivity and to provide access to improved telecommunications and information services as technology advances. High-speed services are needed to handle the applications available today, including online distance learning and videoconferencing. Schools will need E-rate funding for both the initial implementation of high-speed broadband access and for ongoing costs to maintain and continuously improve their networks. Although the E-rate program has always been able to fund all Priority 1 requests in the past, the demand for internal connections has exceeded the E-rate program's \$2.25 billion cap in every year but one since the program's existence. The Commission is currently considering ways to ensure that schools and libraries receive funding for Priority 2 services, with two goals in mind: (1) providing funding for internal connections to more schools and libraries than in the past; and (2) ensuring that a predictable amount of funding is available to schools and libraries for internal connections each year.

Question 7. One of the main focal points of the Plan is radio spectrum and finding more of it for wireless. While I strongly agree that comprehensive spectrum policy reform is long overdue and paramount to achieving the long-term telecommunications needs of this nation, I am concerned about what seems to be a heavy emphasis on reallocation instead of a more multi-faceted solution that includes fostering technological advancement and more robust spectrum management.

Case in point, there are extensive and detailed recommendations in the Plan to reallocate 120 megahertz of spectrum currently being used by broadcasters as well as the voluntary mobile auction fund, but only general recommendations to encourage technical innovation and spectrum sharing/reuse opportunities that would improve spectrum efficiency. For example, a technology known as femtocell, that can increase capacity by offloading wireless traffic onto broadband wireline networks, wasn't mentioned once in the Plan.

This plan is suppose to be forward thinking but seems to be somewhat stuck in the past by presenting a roadmap that excessively relies on reallocation, which is a zero sum game, instead of a greater emphasis on technological innovation and robust management to increase spectrum efficiency and wireless capacity. Do you agree that more robust spectrum management policy and technical innovation advancement are just as important, if not more so than reallocation? Can you explain in more detail how the Plan will implement a comprehensive solution to ensure that spectrum is available to meet the future needs of all users—not just wireless broadband?

Answer. I certainly agree that an effective spectrum policy involves much more than allocation decisions. The Plan includes a number of recommendations for spectrum policy initiatives.

For instance, the Plan calls for ensuring greater transparency concerning existing spectrum allocation and utilization. The FCC has already launched, concurrent with release of the Plan, the “spectrum dashboard,” which enables user-friendly access

to information regarding spectrum bands and licenses. The dashboard will also assist in spectrum policy planning and decision-making, and help promote a robust secondary market in spectrum so that companies can access spectrum to serve a variety of different needs. The Plan also recommends that the Commission move forward with creating methods for ongoing measurement of spectrum utilization. This too, will help provide a fact base that can inform policymaking so that we can take needed actions to make better use of spectrum. In addition, the Plan calls for a triennial assessment of spectrum allocations to ensure that existing allocations serve the public interest.

I also believe that the FCC should expand incentives and mechanisms for incumbent licensees to yield their spectrum to more productive uses. The Plan sets forth several different mechanisms, including the use of incentive auctions and expansion of tools to facilitate relocation of government users.

Question 8. One of the recommendations within the National Broadband Plan is that the FCC should make 500 megahertz newly available for broadband use within the next 10 years, of which 300 megahertz between 225 MHz and 3.7 GHz should be made newly available for mobile use within 5 years.

While the Plan briefly notes general estimates between 40 to 150 megahertz of spectrum are required for each operator, it wasn't clear as to how the 500 MHz would ultimately be parceled out—spectrum license sizes for new competitors and additional spectrum bandwidth to increase capacity for incumbent spectrum licensees. Can you elaborate on how that 500 MHz will be distributed?

Answer. As the Plan notes, the forecast of the need to make 300 megahertz of spectrum between 225 MHz and 3.7 GHz available by 2015 reflects a set of reasonable assumptions about the evolution of supply and demand for mobile bandwidth. Determinations about whether spectrum is licensed or unlicensed, as well as service rules, will need to be developed. By adopting flexible use policies for this spectrum, and facilitating secondary markets, the Commission will help ensure that spectrum can be put to its highest and best use.

Question 9. How will the Commission balance providing more spectrum to incumbents in order to increase capacity and bandwidth with providing spectrum to new entrants to foster more competition so consumers can have more choices available to them?

Answer. The first priority is to make available additional spectrum. Both incumbents and new entrants will need access to spectrum.

Question 10. The FCC recently launched a free broadband speed test for consumers to check the download and upload speeds of their Internet broadband connection. The premise is that the test will allow consumers to compare the FCC test results with the speeds promised by the broadband provider and allow the FCC to use data collected from the test to analyze broadband quality and availability across the United States.

However, some users have expressed concern about widely varying results. There is actually a disclaimer on the FCC test site stating that the test may not be an accurate representation of connection quality provided by one's broadband provider. An FCC official recently stated that "software-based tools can provide individuals with inconsistent performance results, some of which are out of the control of the ISP." Given the test transfers a small amount of generic data back and forth between a user's computer and a testing server, the path that the data takes could contain numerous hops or links owned and operated by multiple carriers that the consumer is not aware of—even for local end points. In addition, the old adage "you're only as fast as your slowest link" seems to apply. So one could easily see a possible misrepresentation the test would have and the consumer confusion that could result.

Is the FCC concerned about consumer confusion that the Commission's Consumer Broadband Test could create? With varying test results and lack of detailed information presented, it could lead to consumers wrongly accusing their broadband provider of not providing what they are advertising even though, as the FCC official noted, some performance characteristics are out of the ISP's control, correct?

Answer. The Commission recognizes that there are limitations to the online, software-based, speed tests, as you rightly point out. However, these speed tests are not designed primarily to test the performance that a consumer's broadband provider is delivering (and solely responsible for), but rather to provide insight into the actual performance that the consumer experiences on his or her device. In that respect, the software-based tests are extremely valuable.

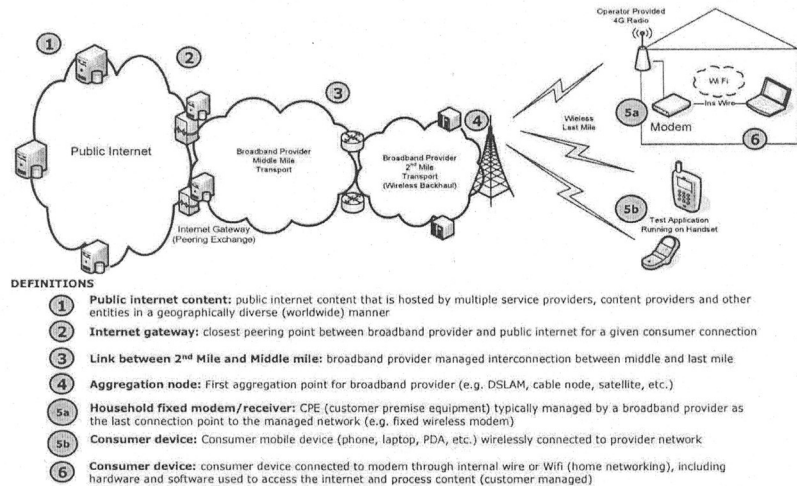
Beyond performance experienced by the consumer though, we are also interested in performance delivered by an individual ISP, as part of the broader transparency

initiative. For that reason, we are also launching a hardware-based speed testing project in partnership with a third-party contractor, SamKnows.

- The goal of the project is to provide consumers with accurate and complete information about what speeds are delivered to their homes by ISPs.
- While measuring performance experienced on an end-user device is valuable as well, ISPs cannot be reasonably held accountable for factors inside of the home that may degrade service. Therefore, this project will rely on scientific, hardware-based testing that will test performance at the point of the user's router.
- The initial test will rely on a panel of 10,000 volunteers across ISPs, service tiers and geographies, all of which will be given a customized router that can be easily integrated into their existing home network.
- The FCC will make results of this study available later this year on both a publicly accessible website and in the form of a report.
- This is the first step in an iterative process to design a specific testing methodology for broadband services and create more transparency and accountability in the broadband marketplace.

Question 11. Transparency with broadband performance is a key issue within the Plan but there isn't any real mention of the multitude of factors that affect broadband speeds—the multiple links that exist between consumer and the Internet content they're accessing, equipment performance, the type of data being transmitted, existence of viruses/malware, etc. What are the FCC's plans to properly address this?

Answer. Many factors affect broadband performance, so, as described above, the Commission intends to employ a two-part strategy to provide improved measurement and reporting of broadband speeds and performance. The first part, tackled by online speed tests at the end-user's device, will provide information on performance experienced by consumers. The second part, tackled by hardware-based testing that sits behind a customer's modem, will provide information on performance delivered by ISPs. As the diagram below illustrates, there are a number of points where performance can be affected:



Software-based testing covers performance for the entire range from point 1 to point 6. However, to isolate just the performance delivered by ISPs, it is important to focus just on point 2 to point 5. The Commission staff is working with a third-party contractor, SamKnows, as well as the ISP community to accomplish this. By placing test devices at the Customer Premise Equipment (CPE) point, we can remove performance degradation that occurs between points 5 and 6 from factors such as in-home wiring, multiple computers in use, viruses or malware on a device, and other issues. By working with ISPs and independent testing locations to place testing servers on ISP networks and at commonly used peering exchanges, we can remove performance degradation that occurs between points 1 and 2 from factors such as off-network or public Internet traffic that an ISP cannot control.

Although there are a multitude of factors affecting broadband speeds, by performing both of these tests, the Commission hopes to isolate just those factors that ISPs are responsible for. That way, consumers are informed as to whether, when they experience sub-standard performance, the issue is what is delivered by the ISP, or whether the issue is on their device or in their home network. This will lessen the burden on ISPs to deal with customer complaints about performance that they cannot correct, and lessen the burden on consumers that may erroneously purchase higher speed service packages when that may not be the true problem.

Question 12. The Broadband Plan indicates that approximately 4 percent of housing units are in areas with three wireline providers (either DSL or fiber, the cable incumbent and a cable over-builder), and 78 percent are in areas with two wireline providers. Thirteen percent are in areas with a single wireline provider and 5 percent have no wireline provider.

However, this data seems to conflict with the FCC's most recent semi-annual broadband report, which was released earlier this year in February. Table 13, which details the percentage of Census Tracts with Residential Fixed High-Speed Connections related to the number of providers, indicates that 26 percent of census tracts have three broadband providers and only 1.1 percent of census tracts have no broadband provider.

Table 13.—Percentage of Census Tracts with Residential Fixed High-Speed Connections by Technology as of December 31, 2008
(Connections over 200 kbps in at least one direction)

Technology	Number of Providers							
	Zero	One	Two	Three	Four	Five	Six	Seven or More
aDSL	4.3	40.7	38.4	13.4	2.7	0.4	0.1	0.0
sDSL	96.0	3.8	0.2	0.0	0.0	0.0	0.0	0.0
Other Wireline	99.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	8.6	79.3	11.6	0.6	0.0	0.0	0.0	0.0
FTTP	86.7	13.0	0.2	0.0	0.0	0.0	0.0	0.0
Satellite	45.2	24.6	24.5	5.6	0.0	0.0	0.0	0.0
Fixed Wireless	87.3	10.2	2.0	0.4	0.1	0.0	0.0	0.0
Power Line	99.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0
aDSL and/or Cable Modem and/or FTTP	1.5	6.6	34.7	35.7	16.2	4.3	0.8	0.2
Any Technology	1.1	2.6	15.1	25.7	26.1	16.7	7.9	4.8

Note: Figures may not sum to totals due to rounding.
Sources: FCC Form 477, Part VI and Census 2000.

Can you clarify the differences in the data sets? Which is more accurate in detailing the number of broadband providers consumers have available to them?

Answer. Table 13 displays data that broadband providers submit to the FCC on Form 477. This data collection requires providers to show the number of customers by technology and speed tier for each census tract in which they offer service. The table then shows the percent of tracts with a given number of providers for each of these technologies.

The NBP highlights a shortcoming of this approach (Ch 4, endnote 6). It states that “. . . the new 477 data are not ideal for analyzing competition because the data identify providers that operate anywhere in a Census tract and not whether their service areas overlap geographically.” So while over half of the census tracts have four or more providers their service territories have an unknown but likely limited overlap.

The NBP (Exhibit 4–A) depicts share of housing units in tracts with 0–3 providers. In partial explanation of how the NBP derived these numbers the endnote states “First, we do not count providers with less than 1 percent of broadband subscriptions in a given Census tract under the assumption that a provider, with such a small number of subscribers is probably not available to a large part of the tract. Second, we identify cable overbuilders (such as RCN) in the data, which allows us to make reasonable assumptions about where cable companies actually provide service to the same geographic areas. Specifically, we assume that any given area is served by a maximum of one facilities-based DSL provider and one cable provider unless a cable overbuilder is present, in which case we count both cable providers. We also count fiber-specific competitors, but do not double-count telco providers that offer both DSL and fiber in the same tract (such as Verizon DSL and FiOS).”

Question 13. Another table (Table 10) in the report shows that the number of broadband providers has increased from 1,270 in June 2005 to 1,554 in December 2008—a 22 percent increase over 3 and a half years.

Table 10.—Nationwide Number of Providers of High-Speed Connections by Technology 2005–2008
(Connections over 200 kbps in at least one direction, in thousands)

Technology	2005		2006		2007		2008	
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
aDSL	758	818	833	858	864	856	863	879
sDSL	270	269	256	257	242	233	238	262
Other Wireline	206	241	246	256	246	250	259	290
Cable Modem	227	242	254	279	282	292	296	341
FTTP	138	170	187	222	251	276	308	430
Satellite	10	4	5	5	5	5	4	5
Fixed Wireless	423	463	452	505	484	514	505	617
Mobile Wireless	13	15	19	24	19	22	24	46
Power Line and Other	18	7	6	6	6	7	6	5
Total	1,270	1,345	1,327	1,396	1,374	1,399	1,395	1,554

Note: Multiple Form 477 filers within a holding company structure count as one provider.
Source: FCC Form 477, Part I.

From the FCC's point of view is the broadband industry becoming more competitive and do consumers have more options for broadband providers available to them?

Answer. The Plan recognizes that competition is crucial for promoting consumer welfare and spurring innovation and investment in broadband access networks. Competition provides consumers the benefits of choice, better service and lower prices. The Plan analyzed available data to assess the current state of competition among wireline broadband services and mobile wireless broadband services, and the competitive dynamics across different broadband technologies. However, the Plan does not analyze the market power of specific companies or reach definitive conclusions about the current state of competition for residential broadband services. Rather, the Plan includes a variety of recommendations designed to spur competition and innovation across the three elements of the broadband ecosystem—networks, devices and applications.

With regard to broadband networks, the Plan makes recommendations intended to ensure that consumers have the information they need to make decisions that maximize benefits from these services. Increased transparency will likely drive service providers to deliver better value to consumers through better services. The Plan also focuses on ways to increase competition in the wholesale broadband market—including issues associated with high-capacity circuits, copper retirement, interconnection and data roaming.

As the Commission considers rulemakings to implement these recommendations, the Commission looks forward to participation from the public and interested parties to ensure that the goals of increased competition are realized.

Question 14. Broadband Internet access services are currently classified as information service, which is defined as “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing.”

Some have suggested reclassifying broadband as a telecommunications service, which is defined as “the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.”

Without question, there has been a significant evolution in the telecommunications industry and the networks—from the legacy tip & ring circuit-switched PSTN voice network to the high-bandwidth, dynamic routing, IP packet-based networks of today, where there is a convergence of various data types. Today's broadband networks employ numerous protocols, various caching and queuing technologies, DNS/IP addressing, as well as encoding and decoding (codecs) technologies that allow consumers to utilize countless services and applications online. Very simply, there is an extensive amount of processing, storing, and converting activities on a broadband network than the legacy phone network with regards to the User Network Interface (UNI) connection. In your opinion and from a pure definitional standpoint, which definition is more appropriate for broadband access services? Do you believe a new definition or classification (such as “Internet Service” or “Broadband Service”) may be required to better reflect broadband Internet access services?

Answer. In the *Brand X* decision, 454 U.S. 967 (2005), the Supreme Court held that it is ambiguous whether cable modem service, one form of broadband Internet access service, is an integrated information service or includes a telecommunications service component.

A majority of six Justices are on record as saying that classification of cable modem service is a call for the FCC to make and that “the Commission is free within the limits of reasoned interpretation to change course if it adequately justifies the change” (*id.* at 1001); one of the six “just barely” accepted the FCC’s information service approach; and the three remaining Justices expressed the view that the agency *must* classify a separable telecommunications service within cable modem offerings. In light of that decision, I believe the FCC has discretion in deciding whether broadband Internet access service includes a telecommunications service component.

As you know, Chairmen Rockefeller, Waxman, Kerry, and Boucher have announced they will start a process to develop proposals to update the Communications Act. A limited update of the Communications Act could lock in an effective broadband framework to promote investment and innovation, foster competition, and empower consumers. I have committed all available Commission resources to assisting Congress in its consideration of how to improve and clarify our communications laws.

Question 15. Would reclassification of broadband Internet access service as a telecommunications service change the ability of service providers to deal with online copyright theft? What should be done to maximize security for copyright holders from a technology standpoint?

Answer. I do not believe that classification of the transmission component of broadband Internet access service as a telecommunications service would have any effect on the ability of service providers to deal with online copyright theft. The National Broadband Plan recognizes (at page 58) that “[t]he Internet must be a safe, trusted platform for the lawful distribution of content.” The Plan acknowledges (at page 17) that digital piracy is an ongoing problem. The Plan notes promising developments in technology to prevent piracy, such as content finger-printing, and lauds industry-led initiatives to develop guidelines for dealing with piracy. I am hopeful that continuing advances in technology, development of industry guidelines, and enforcement of copyright laws will curb piracy without stifling innovation or overburdening lawful uses of copyrighted works.

Question 16. Additionally, would reclassification have any implications for the ability of service providers to deal with computer viruses or spam, or even to implement cybersecurity measures? As a member of the Intelligence Committee, I am very interested in enhancing—and not impeding—cybersecurity protections, so I look forward to your comments on this.

Answer. As you know, section 1 of the Communications Act explains that the Commission exists “for the purpose of the national defense [and] for the purpose of promoting safety of life and property through the use of wire and radio communication.” Cybersecurity is a growing concern, and the Commission has recently begun two proceedings to assess our needs in this area: we have launched an inquiry on the ability of existing broadband networks to withstand significant damage or severe overloads as a result of natural disasters, terrorist attacks, pandemics or other major public emergencies; and we have begun a proceeding to seek public comment on the proposed creation of a new voluntary cybersecurity certification program that would encourage communications service providers to implement a full range of cybersecurity best practices. We will examine the records of these proceedings closely, along with the record generated in response to the Notice of Inquiry on our legal framework. To the extent that the Commission possessed the necessary authority to address cybersecurity, as well as online copyright theft, computer viruses or spam before *Comcast*, the “third way” classification framework discussed in the Notice of Inquiry on our legal framework would protect that authority. If, on the other hand, the Commission decides to maintain the information service classification, jurisdictional issues would be addressed on a case-by-case basis, in light of the particular details of the proposal at issue.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN ENSIGN TO
HON. JULIUS GENACHOWSKI

Question 1. Chairman Genachowski, last month the Washington Post wrote that “it is curious that the [FCC] faults the market for failing” when “the number of Americans who have broadband at home has grown from 8 million in 2000 to nearly 200 million last year.” The National Broadband Plan itself notes that broadband providers invested \$130 billion into their networks over the last 2 years, during a major recession. I have to agree with the *Washington Post* editorial board—I don’t see signs of gross market failure that might justify the sort of government spending

and increased government intervention recommended by the Plan. How is it that you and your team came to such a different conclusion?

Answer. In the Recovery Act, Congress directed the FCC to develop a National Broadband Plan that would “seek to ensure that all people of the United States have access to broadband capability and [to] establish benchmarks for meeting that goal,” as well as promote the use of broadband infrastructure in advancing a number of national purposes like health care delivery, education, and energy independence and efficiency.

In 2009, I said that our steps to fulfill this Congressional directive would be data-driven—not starting with conclusions, but using data to develop analysis—not just accepting data, but digging into data to find concrete solutions that supersede ideology—and that can make a difference in the lives of real Americans.

To complete the Plan, the FCC launched 36 staff-level public workshops attracting over 2,500 participants; issued 31 Public Notices, generating over 23,000 comments totaling more than 74,000 pages; and used new media tools including our broadband blog, which received over 1,200 comments, all of which were entered into the official record.

The data we gathered from this process showed that on many quantifiable metrics, the United States faced significant gaps. The FCC team found that roughly 14 to 24 million Americans lack access to broadband infrastructure that can support today’s applications, and that roughly 80 million American adults still do not use broadband at home. Only 16 percent of public community colleges have high-speed connections comparable to research universities. And nearly a decade after 9/11, the Nation’s first responders still lack access to a nationwide, interoperable wireless public safety network.

To be sure, today’s broadband ecosystem is vibrant and healthy in many ways—in large part, due to the large investments that private sector providers have made. In order to meet the high goals for American technological leadership that we set in the Plan, private sector investment will be essential. That’s why the plan takes steps to drive innovation and investment in the broadband ecosystem long into the future—yielding innovations, devices and services we cannot dream of today. These solutions—making 500 MHz of spectrum available for mobile broadband use and reforming the Universal Service Fund in a revenue-neutral manner to make broadband available to every American—are not intended to displace the role of private investment. Rather, they are targeted to maximize the fruits of that investment in a way that speeds the deployment, adoption and use of broadband in the ways Congress intended and for the benefit of all Americans.

Question 2. Chairman Genachowski, one of the National Broadband Plan’s goals is to have 100 million households served by 100 megabit broadband within 10 years. Achieving this goal will obviously require tens of billions of dollars to be invested into broadband networks. The Plan, however, recommends net neutrality restrictions; suggests broader unbundling mandates; and leaves the door open to using outdated monopoly telephone regulations for broadband. Most people I talk to say that heavy-handed regulations like these will deter the private-sector investment you need to reach your 100 to 100 target. If such policies would result in less investment, isn’t the FCC be undermining its own goals by pursuing these regulatory policies?

Answer. I start with the belief that the private sector must play the leading role in extending broadband networks across our nation, to ensure we realize our ambitious 100 X 100 goal. Promoting private sector investment is a key focus of the National Broadband Plan and a key priority for the FCC, including through initiatives to reduce barriers to broadband deployment; reform the Universal Service Fund to support broadband; and provide high-level rules of the road to preserve the free and open Internet as an engine for economic growth and private investment, both in and on top of broadband Internet platforms.

Question 3. Chairman Genachowski, in your testimony before the House Commerce Committee, you left the door open to pursuing involuntary proposals to reallocate broadcaster spectrum. While you and I agree on the importance of finding more spectrum for wireless broadband, I believe we must exhaust every possible voluntary proposal before even talking about involuntary mechanisms. Do you agree? And if so, will you commit to us today that you will not consider any involuntary proposals until the FCC has completed its consideration and implementation of all possible voluntary mechanisms?

Answer. I believe, and the staff at the FCC believes, that a voluntary approach can work, and our goal is to first employ all possible voluntary mechanisms. We believe a voluntary approach with proceeds sharing will allow the market to determine the best use of spectrum, allowing the right amount of spectrum demanded by the

market to flow to its highest valued use, while creating value for everyone in that chain of stakeholders (broadcasters, consumers, and broadband providers).

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. GEORGE S. LEMIEUX TO
HON. JULIUS GENACHOWSKI

Question 1. Last year, Congress approved a stimulus bill directing more than \$7 billion in funding for broadband deployment. While some of the funds have now gone out, the funding did not go out quickly, and many of the largest broadband providers would not participate. Since this money was allocated before this plan was created, are you concerned that billions of dollars in funding are being misspent in a fashion that is devoid of a strategic plan? Has your staff been coordinating with the Department of Commerce and the Department of Agriculture to ensure that their funding plans complement the broadband plan we are considering today?

Answer. The Commission coordinated extensively with the Executive Branch and provided its technical and other expertise to the Departments of Commerce and Agriculture during the development of their Recovery Act grant and loan programs, and our agencies remain in contact on matters of broadband policy. While the grant and loan programs were implemented prior to the completion of the National Broadband Plan, as required by law, I believe that those programs are complementary to the proposals in the Plan. The plan explicitly mentions the BTOP program in several places, highlighting how this first investment in broadband will impact the broadband ecosystem, and how best to measure and learn from those early investments to improve decisions in the future. In addition, the Plan emphasizes the importance of deploying facilities to consumers who do not have access to broadband or who face other obstacles to adoption, such as affordability, and recommends a variety of different tools to advance these goals.

Question 2. As you know, spectrum availability has been of concern as our Nation's technologies develop. We must be working to find ways to free up spectrum for new technologies. In the National Broadband Plan, it is stated that to free up spectrum broadcasters will be asked to volunteer to give up some of their spectrum (of which they already gave some up for the digital transition). What is the plan should these broadcasters not volunteer more of their spectrum?

Answer. I believe, and the staff at the FCC believes, that a voluntary approach can work, and our goal is to first employ all possible voluntary mechanisms. We believe a voluntary approach with proceeds sharing will allow the market to determine the best use of spectrum, allowing the right amount of spectrum demanded by the market to flow to its highest valued use, while creating value for everyone in that chain of stakeholders (broadcasters, consumers, and broadband providers). We intend to focus our efforts on voluntary mechanisms so as to best ensure their success.

Question 3. As you know, in recent years, Internet piracy and intellectual property protection has been a mounting problem. The National Broadband Plan would be a perfect opportunity to address this issue. The current plan does not mention piracy and has little mention of intellectual property protections. Why was there no acknowledgement in your plan of the piracy problems that plague our entertainment and software companies online? With the rollout of this plan, almost every American will have access to broadband. With greater broadband speeds and availability, what is being done to protect the content from being stolen?

Answer. The National Broadband Plan recognizes (at page 58) that "[t]he Internet must be a safe, trusted platform for the lawful distribution of content." The Plan acknowledges (at page 17) that digital piracy is an ongoing problem. The Plan notes promising developments in technology to prevent piracy, such as content fingerprinting, and lauds industry-led initiatives to develop guidelines for dealing with piracy. The Plan does not include any specific recommendations for ensuring that expanding broadband deployment will not increase the amount of piracy of copyrighted works. I am hopeful that continuing advances in technology, development of industry guidelines, and enforcement of copyright laws will curb piracy without stifling innovation or overburdening lawful uses of copyrighted works.

Question 4. Do you believe public safety needs or will need more than 10 MHz of spectrum for voice, video, and data? If yes, by when? If they do, then why not just allocate the spectrum now? Why should we try to solve this problem later if we already have the solution in front of us now? Will it not cost more to solve the problem later and create problems with interoperability because systems will be on different spectrum bands?

Answer. Currently there is 10 MHz of dedicated capacity in the 700 MHz band available for use for public safety broadband communications. This spectrum is

available today and, because of its propagation and other technical attributes, provides a solid platform for deployment of a nationwide, interoperable public safety broadband network. This 10 MHz of dedicated capacity is the necessary core on which to build the public safety network and will provide public safety with more than adequate capacity and performance required to support day-to-day and emergency communications.

Technology advances in the LTE air-interface standard will likely make it possible for non-contiguous spectrum to be part of the network. Accordingly, should additional capacity be required in the future, this technology, in conjunction with the interoperability requirements imposed by the FCC's Emergency Response Interoperability Center will ensure that interoperability is not compromised.

The 700 MHz band, where this spectrum is located, is particularly exciting as new 4G technologies, such as LTE, are just beginning to be deployed to support advanced data communications. Public safety, by being able to deploy their networks now and in the near future, can capitalize on these technologies and this commercial deployment, ensuring a technological evolution path and reducing costs by leveraging these commercial technologies.

More specifically, in deploying its network in this core spectrum, public safety can enter into incentive-based partnerships with commercial entities to deploy their network in a cost-effective manner that utilizes these state-of-the-art commercial 4G technologies and leverages commercial infrastructure. In this way, public safety will recognize approximately \$9 billion in cost savings for the construction of the network and potentially tens of billions in savings in operating costs. Unfortunately, as I will discuss a little later, if the D block is reallocated to the public safety community, it is likely that these cost savings will not be recognized because significant cost-efficiencies will squandered. If this occurs, the mere expense of the network will make it extremely unlikely that the network will be nationwide, leaving portions of the country without access to these critical public safety communications services.

FCC technical staff has spent considerable time and effort ensuring that the 10 MHz of dedicated spectrum available to public safety will provide more than adequate capacity and performance for day-to-day and emergency communications. Our analysis, which we released publicly this week, demonstrates through the examination of several real-life large-scale emergencies, that allowing public safety to build out their broadband network on the core 10 MHz of dedicated spectrum supports these critical communications requirements. When analyzing capacity, an important point to keep in mind is that spectrum does not equal capacity. By deploying advanced, 4G wireless technologies and cellular network architecture, public safety can achieve much greater capacity than they have achieved in the past. Further, based on the past evolutionary trends of commercial technologies, if the public safety network is deployed utilizing non-proprietary commercial technologies, capacity and performance of the network is likely to improve in the same amount of spectrum.

However, we also recognize that it is impossible to plan for the worst emergency. Accordingly, it is critical to provide public safety with a backstop of additional capacity for use when they need it such as when their network is at capacity or otherwise unavailable. Accordingly, the FCC is planning to shortly initiate a rulemaking proceeding that will require commercial operators across the 700 MHz band to provide public safety with roaming and priority access on their networks at reasonable rates. This means that public safety will have access to as much as 60 MHz of additional spectrum—far more than the 10 MHz of spectrum available in the D block. Further, unlike the case of just reallocating the D block, roaming and priority access will provide public safety with access to resilient networks in case their network is rendered unavailable.

Still, there are additional pieces to ensure adequate capacity and performance. First, our cost model recognizes and captures the need for deployable caches of communications equipments, such as cell towers on wheels, to ensure that the public safety community is able to supplement its network during the worst emergencies.

Second, we have also recommended that states and localities should include in their building codes requirements for the installation of in-building transmitters.

Question 5. The National Broadband Plan seems to place a heavy emphasis on public safety having priority access to commercial networks to augment the 10 MHz of dedicated public safety broadband spectrum. How can you be sure that commercial carriers will be willing to provide that access?

Answer. The Commission will soon commence a proceeding to require commercial networks to offer public safety users priority access and roaming capabilities at reasonable rates. This will ensure that critical communications needs can be met even when public safety broadband networks are at capacity or unavailable.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DAVID VITTER TO
HON. JULIUS GENACHOWSKI

Question 1. The FCC's recently released National Broadband Plan makes numerous references to several internal reports prepared by the Omnibus Broadband Team as support for its recommendations.

- The Broadband Availability Gap Report, cited 22 times
- Broadband Performance Report
- Spectrum Reclamation: Options for Broadcast Spectrum Report
- The Public Safety Broadband Wireless Network Report

I understand that these reports still have not been made available. Is this true, when do you expect to release these reports so Congress and the public can begin the process of reviewing the analysis underlying the recommendations contained in the Plan?

Answer. The Broadband Availability Gap Report was released April 21, 2010. The Public Safety Broadband Wireless Network Report was released April 23, 2010. They are available for download at <http://www.broadband.gov/plan/broadband-working-reports-technical-papers.html>.

The FCC has already held an open workshop on the Broadband Availability Gap Report to present the broadband team's analysis and take questions from the public.

The release dates for the Spectrum Reclamation: Options for Broadcast Spectrum Report and the Broadband Performance Report are forthcoming.

Question 2. I know the plan's goal is to reach 100 million households with 100 Mbps service. Some analysts believe that we may be on path to reach this goal with current market conditions. Wouldn't it be preferable to let the market investment work instead changing the broadband regulatory structure in a way that many think could provide disincentives to investment?

Answer. I agree that we should let the market work where it can effectively promote innovation, investment, deployment, and provide consumers with reasonable, affordable choices. As the Commission works through the implementation of the National Broadband Plan recommendations, we will take care to ensure that our policies encourage investment and deployment, promote innovation, and allow consumers to enjoy the benefits of next generation broadband services.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. SAM BROWNBACK TO
HON. JULIUS GENACHOWSKI

Question 1. In response to a question I asked you during this committee's consideration of your nomination, you stated that you "agree that unthinking or heavy-handed regulation always carries the risk of burdening innovation, investment, and dynamism—and that the FCC must be vigilant in guarding against such an approach."

I have therefore been surprised about several initiatives you have taken, or are considering since becoming Chairman. You launched into a rulemaking proceeding on network neutrality before having gathered any facts regarding whether there is a problem that needs a regulatory solution. Now that the D.C. Circuit has rejected the FCC's assertion of authority to impose network management regulations on broadband providers, you are allegedly considering reclassifying broadband services as telecommunications services, saddling such services with common carrier regulations. And some of your recommendations in the National Broadband Plan, such as fiber unbundling, contemplate eradicating the extremely successful broadband policies that began under Chairman Kennard in the Clinton Administration.

I was glad during your confirmation process that you recognized that heavy-handed regulation runs "the risk of burdening innovation, investment, and dynamism." But you seem to be heading in that very direction, despite the impact that such regulation would have on your, and the Obama Administration's, broadband goals. How are you going to achieve ubiquitous broadband deployment when, by your own admission, you are risking investment by imposing burdensome regulations?

Answer. Promoting continued investment and job creation, both in the core broadband networks and through Internet-based services and applications that ride on such networks, is a key priority for the FCC and a key focus of the National Broadband Plan. On June 17, the Commission adopted a Notice of Inquiry on a Legal Framework for Broadband. This Notice initiates an agency proceeding to seek public comment on how the Commission should best address the challenge that the D.C. Circuit's *Comcast* decision has handed us, including how the agency can foster predictability and promote innovation and investment. It seeks comment on all op-

tions, and invites any ideas for how the Commission should proceed, including: maintaining the current “information service” classification of services such as cable modem and DSL Internet access; classifying broadband Internet connectivity service as a “telecommunications service” to which all the requirements of Title II of the Communications Act would apply; and a “third way”—similar to the highly successful approach that has been used for cell phone services since 1993—under which the Commission would identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service and forbear from applying all provisions of Title II other than the small number that are needed to implement fundamental universal service, competition, and consumer protection policies.

Question 2. If broadband were to be reclassified as telecommunications service, do you think broadband service providers would increase investment in their networks? Please explain your answer.

Answer. These issues are addressed in my answer to Question 1 above and in the statements released by myself (Genachowski Statement) and the FCC’s General Counsel, Austin Schlick (Schlick Statement), on May 6, 2010, concerning the “Third Way.” Copies are attached for your convenience. I believe the “Third Way” I have proposed, would encourage investment in broadband networks by providing regulatory certainty, avoiding needless regulation, and enabling the provision of universal service support for broadband deployment. I would also note that the Third Way is modeled on the light touch regulatory treatment for the wireless industry that many have cited as pro-investment and pro-innovation. I remain open to other ideas that will achieve the same objective and provide a sound legal framework, and the Notice of Inquiry adopted at our June 17 Open Meeting seeks comment on all possible approaches, including maintaining the current information services classification for broadband Internet services.

Question 3. Do you believe that a reclassification of broadband services would survive a court challenge? Are you willing to endure years of uncertainty waiting for an answer?

Answer. I am confident that any decision the FCC issues that addresses or relies on Commission authority to implement broadband policies will be challenged in court. For the reasons given in the May 6, 2010 statement by the FCC’s General Counsel, I believe that classification of the transmission component of wireline broadband Internet access service as a telecommunications service would survive judicial review. See *Schlick Statement at 6–7*.

Question 4. In the *Comcast* case, the D.C. Circuit held that the FCC had not demonstrated that its regulation of the network management activities of ISPs was reasonably ancillary to express authority provided to the FCC by Congress. But the D.C. Circuit reiterated its two-part test that the Commission is permitted to exercise ancillary authority when: (1) Title I covers a particular entity or activity and (2) Commission action is “reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.” Do you agree that the D.C. Circuit’s decision does not preclude the Commission from exercising ancillary jurisdiction in the future as long as the agency ties such authority to its “statutorily mandated responsibilities”?

Answer. I agree that the *Comcast* decision does not preclude the Commission from exercising ancillary authority to effectuate statutorily mandated responsibilities. The Notice of Inquiry adopted on June 17, seeks comment on the strongest arguments for use of ancillary authority to realize the FCC’s mission for broadband communications.

Question 5. In *Comcast*, the D.C. Court concluded that “[b]y leaping from *Brand X*’s observation that the Commission’s ancillary authority may allow it to impose some kinds of obligations on cable Internet providers to a claim of plenary authority over such providers, the Commission runs afoul of *Southwestern Cable and Midwest Video I*.” Doesn’t this mean that the D.C. Circuit acknowledges that the FCC can exercise ancillary authority to impose certain rules, but that the FCC must demonstrate that the imposition of such rules is reasonably ancillary to the agency’s statutorily mandated responsibilities?

Answer. See Response to Question 3 above.

Question 6. According to Commissioner McDowell’s March testimony at the House Energy and Commerce Committee, “[m]ore than half of all Americans have a choice of five wireless providers. Ninety-four percent have a choice of four. Similarly, we lead the world in 3G build-out and adoption.” In addition, Commissioner McDowell asserts that “[n]ot only does the United States have one-third of the world’s market share of “mobile apps,” but the American mobile app market has grown over 500

percent since 2007.” Given these facts, how did the report conclude that the United States lags in mobile innovation?

Answer. The National Broadband Plan stated that “[t]he United States maintains the greatest tradition of innovation and entrepreneurship in the world—one that combines creativity with engineering to produce world-leading applications, devices and content, as well as the businesses that bring them to market.”

However, innovation will be constrained if the FCC does not make additional spectrum available. As the Plan states, “Mobile broadband is growing at unprecedented rates. . . playing an increasingly important role in our lives and our economy. Mobile broadband is the next great challenge and opportunity for the United States. It is a nascent market in which the United States should lead.” Today, the FCC has only 50 megahertz of spectrum in the pipeline that it can assign for broadband use, just a fraction of the amount that will be necessary to match growing demand. As a result, companies representing 5 percent of the U.S. economy asked the FCC to make more spectrum available for mobile broadband, saying that “without more spectrum, America’s global leadership in innovation and technology is threatened.”

If we do not make more spectrum available, scarcity of mobile broadband could mean higher prices, poor service quality, an inability for the United States to compete internationally, depressed demand, and ultimately, a drag on innovation.

The Plan concludes that “[b]y any measure, innovation is thriving in mobile and computing devices.” I look forward to working with Congress, the industry and stakeholders to ensure that the United States has the spectrum it needs to lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.

THE THIRD WAY: A NARROWLY TAILORED BROADBAND FRAMEWORK

Chairman Julius Genachowski—*Federal Communications Commission*—May 6, 2010

Many have asked about the FCC’s next steps in view of the recent decision in the *Comcast* case. I’ll describe here a path forward, which will begin with seeking public comment on a post-*Comcast* legal foundation for the FCC’s approach to broadband communications services. The goal is to restore the broadly supported status quo consensus that existed prior to the court decision on the FCC’s role with respect to broadband Internet service.

This statement describes a framework to support policies that advance our global competitiveness and preserve the Internet as a powerful platform for innovation, free speech, and job creation. I remain open to all ideas on the best approach to achieve our country’s vital goals with respect to high-speed broadband for all Americans, and the Commission proceeding to follow will seek comment on multiple legal theories and invite new ideas.

The FCC’s Mission

More than 75 years ago, Congress created the Federal Communications Commission with an explicit mission: “to make available, so far as possible, to all people of the United States . . . A rapid, efficient, Nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges, for the purpose of the national defense, [and] for the purpose of promoting the safety of life and property through the use of wire and radio communication.”

In the decades since, the technologies of communications have changed and evolved—from telephone, radio, and broadcast TV to cable, satellite, mobile phones, and now broadband Internet. With the guidance of Congress, the Commission has tailored its approach to each of these technologies. But the basic goals have been constant: to encourage private investment and the building of a communications infrastructure that reaches all Americans wherever they live; to pursue meaningful access to that infrastructure for economic and educational opportunity and for full participation in our democracy; to protect and empower consumers; to promote competition; to foster innovation, economic growth, and job creation; and to protect Americans’ safety.

The Consensus Understanding of the FCC’s Role with Respect to Broadband

A challenge for the FCC in recent years has been how to apply the time-honored purposes of the Communications Act to our 21st Century communications platform—broadband Internet—access to which is generally provided by the same companies that provide telephone and cable television services.

Broadband is increasingly essential to the daily life of every American. It is fast becoming the primary way we as Americans connect with one another, do business, educate ourselves and our children, receive health care information and services, and express our opinions. As a unanimous FCC said a few weeks ago in our *Joint Statement on Broadband*, “Working to make sure that America has world-leading high-speed broadband networks—both wired and wireless—lies at the very core of the FCC’s mission in the 21st Century.”

Over the past decade and a half, a broad consensus in the public and private sectors has developed about the proper role and authority for the FCC regarding broadband communications. This bipartisan consensus, which I support, holds that the FCC should adopt a restrained approach to broadband communications, one carefully balanced to unleash investment and innovation while also protecting and empowering consumers.

It is widely understood—and I am of the view—that the extreme alternatives to this light-touch approach are unacceptable. Heavy-handed prescriptive regulation can chill investment and innovation, and a do-nothing approach can leave consumers unprotected and competition unpromoted, which itself would ultimately lead to reduced investment and innovation.

The consensus view reflects the nature of the Internet itself as well as the market for access to our broadband networks. One of the Internet’s greatest strengths—its unprecedented power to foster technological, economic, and social innovation—stems in significant part from the absence of any central controlling authority, either public or private. The FCC’s role, therefore should *not* involve regulating the Internet itself.

Consumers do need basic protection against anticompetitive or otherwise unreasonable conduct by companies providing the broadband access service (e.g., DSL, cable modem, or fiber) to which consumers subscribe for access to the Internet. It is widely accepted that the FCC needs backstop authority to prevent these companies from restricting lawful innovation or speech, or engaging in unfair practices, as well as the ability to develop policies aimed at connecting all Americans to broadband, including in rural areas.

The Broadband Policy Agenda

Consistent with this consensus view of the FCC’s role, Congress last year directed the FCC to develop America’s first National Broadband Plan, which we delivered in March. And I have described over the past months the policy initiatives I believe are of crucial importance to our global competitiveness, job creation, and broad opportunity. These include:

- Extending broadband communications to all Americans, in rural and urban America and in between, by transforming the \$9 billion Universal Service Fund from supporting legacy telephone service to supporting broadband communications service;
- Protecting consumers and promoting healthy competition by, for example, providing greater transparency regarding the speeds, services, and prices consumers receive, and ensuring that consumers—individuals as well as small businesses—are treated honestly and fairly;
- Empowering consumers to take control of their personal information so that they can use broadband communications without unknowingly sacrificing their privacy;
- Lowering the costs of investment—for example, through smart policies relating to rights-of-way—in order to accelerate and extend broadband deployment;
- Advancing the critical goals of protecting Americans against cyber-attacks, extending 911 coverage to broadband communications, and otherwise protecting the public’s safety; and
- Working to preserve the freedom and openness of the Internet through high-level rules of the road to safeguard consumers’ right to connect with whomever they want; speak freely online; access the lawful products and services of their choice; and safeguard the Internet’s boundless promise as a platform for innovation and communication to improve our education and health care, and help deliver a clean energy future.

At the same time, I have been clear about what the FCC should *not* do in the area of broadband communications: For example, FCC policies should not include regulating Internet content, constraining reasonable network management practices of broadband providers, or stifling new business models or managed services that are pro-consumer and foster innovation and competition. FCC policies should also recognize and accommodate differences between management of wired networks and

wireless networks, including the unique congestion issues posed by spectrum-based communications. The Internet has flourished and must continue to flourish because of innovation and investment throughout the broadband ecosystem: at the core of the network, at its edge, and in the cloud.

These policies reflect an essential underlying regulatory philosophy:

- A strong belief in the free market and in private investment as essential and powerful engines of economic growth;
- An embrace of the view that a healthy return-on-investment is a necessary and desirable incentive to risk-taking and deployment of capital;
- A recognition of the powerful role entrepreneurs, innovators, startups and small businesses must play in fueling American economic success; and
- An understanding that government has a vital but limited role in advancing common goals, for example by helping tackle core infrastructure and public safety challenges; providing basic rules of the road to enable markets to work fairly; acting in a properly calibrated way when necessary to protect consumers and promote competition, investment, and innovation—and otherwise getting out of the way of the entrepreneurial genius and free market that is America's greatest competitive advantage.

Implications of *Comcast v. FCC*

The recent court opinion in *Comcast v. FCC* does not challenge the longstanding consensus about the FCC's important but restrained role in protecting consumers, promoting competition, and ensuring that all Americans can benefit from broadband communications. Nor does it challenge the commonsense policies we have been pursuing.

But the opinion does cast serious doubt on the particular legal theory the Commission used for the past few years to justify its backstop role with respect to broadband Internet communications. The opinion therefore creates a serious problem that must be solved so that the Commission can implement important, commonsense broadband policies, including reforming the Universal Service Fund to provide broadband to all Americans, protecting consumers and promoting competition by ensuring transparency regarding broadband access services, safeguarding the privacy of consumer information, facilitating access to broadband services by persons with disabilities, protecting against cyber-attacks, ensuring next-generation 911 services for broadband communications, and preserving the free and open Internet.

The legal theory that the *Comcast* opinion found inadequate has its roots in a series of controversial decisions beginning in 2002 in which the Commission decided to classify broadband Internet access service not as a "telecommunications service" for purposes of the Communications Act, but as something different—an "information service."

As a result of these decisions, broadband became a type of service over which the Commission could exercise only indirect "ancillary" authority, as opposed to the clearer direct authority exercised over telecommunications services. Importantly, at the time, supporters of this "information services" approach clearly stated that the FCC's so-called "ancillary" authority would be more than sufficient for the Commission to play its backstop role with respect to broadband access services and pursue all sensible broadband policies.

The Commission's General Counsel and many other lawyers believe that the *Comcast* decision reduces sharply the Commission's ability to protect consumers and promote competition using its "ancillary" authority, and creates serious uncertainty about the Commission's ability, under this approach, to perform the basic oversight functions, and pursue the basic broadband-related policies, that have been long and widely thought essential and appropriate.

This undermining of settled understandings about the government's role in safeguarding our communications networks is untenable. Since the decision, lawyers from every quarter of the communications landscape have been debating a difficult and technical legal question: What is the soundest and most appropriate legal grounding to let the FCC carry out what almost everyone agrees to be necessary functions regarding broadband communications?

The Conventional Options

Two primary options have been debated since the *Comcast* decision:

One, the Commission could continue relying on Title I "ancillary" authority, and try to anchor actions like reforming universal service and preserving an open Internet by *indirectly* drawing on provisions in Title II of the Communications Act (*e.g.*, sections 201, 202, and 254) that give the Commission direct authority over entities providing "telecommunications services."

Two, the Commission could fully “reclassify” Internet communications as a “telecommunications service,” restoring the FCC’s direct authority over broadband communications networks but also imposing on providers of broadband access services dozens of new regulatory requirements.

I have serious reservations about both of these approaches.

The FCC General Counsel advises that under the first option, continuing to pursue policies with respect to broadband Internet access under the ancillary authority approach has a serious risk of failure in court. It would involve a protracted, piecemeal approach to defending essential policy initiatives designed to protect consumers, promote competition, extend broadband to all Americans, pursue necessary public safety measures, and preserve the free and open Internet.

The concern is that this path would lead the Commission straight back to its current uncertain situation—and years will have passed without actually implementing the key policies needed to improve broadband in America and enhance economic growth and broad opportunity for all Americans.

Meanwhile, the second option, fully reclassifying broadband services as “telecommunications services” and applying the full suite of Title II obligations, has serious drawbacks. While it would clarify the legal foundation for broadband policy, it would also subject the providers of broadband communications services to extensive regulations ill-suited to broadband. Title II, for example, includes measures that, if implemented for broadband, would fail to reflect the long-standing bipartisan consensus that the Internet should remain unregulated and that broadband networks should have only those rules necessary to promote essential goals, such as protecting consumers and fair competition.

Accordingly, I directed the FCC General Counsel and staff to identify an approach that would restore the status quo—that would allow the agency to move forward with broadband initiatives that empower consumers and enhance economic growth, while also avoiding regulatory overreach. In short, I sought an approach consistent with the longstanding consensus regarding the limited but essential role that government should play with respect to broadband communications.

I am pleased the General Counsel and staff have identified a third-way approach—a legal anchor that gives the Commission only the modest authority it needs to foster a world-leading broadband infrastructure for all Americans while definitively avoiding the negative consequences of a full reclassification and broad application of Title II.

A Third Way

As General Counsel Austin Schlick has explained more fully in his statement today, under this narrow and tailored approach, the Commission would:

- Recognize the transmission component of broadband access service—and only this component—as a telecommunications service;
- Apply only a handful of provisions of Title II (Sections 201, 202, 208, 222, 254, and 255) that, prior to the *Comcast* decision, were widely believed to be within the Commission’s purview for broadband;
- Simultaneously renounce—that is, forbear from—application of the many sections of the Communications Act that are unnecessary and inappropriate for broadband access service; and
- Put in place up-front forbearance and meaningful boundaries to guard against regulatory overreach.

This approach has important virtues.

First, it will place Federal policy regarding broadband communications services, including the policies recommended in the National Broadband Plan, on the soundest legal foundation, thereby eliminating as much of the current uncertainty as possible. From reorienting the Universal Service Fund to support broadband in rural America, to adopting focused consumer protection and competition policies, to promoting public safety in a broadband world, this approach would provide a solid legal basis. In particular, it would allow broadband policies to rest on the Commission’s direct authority over telecommunications services while also using ancillary authority as a fallback.

Second, the approach is narrow. It will treat only the transmission component of broadband access service as a telecommunications service while preserving the long-standing consensus that the FCC should not regulate the Internet, including web-based services and applications, e-commerce sites, and online content.

Third, this approach would restore the status quo. It would not change the range of obligations that broadband access service providers faced pre-*Comcast*. It would not give the FCC greater authority than the Commission was understood to have

pre-Comcast. And it would not change established policy understandings at the FCC, such as the existing approach to unbundling or the practice of not regulating broadband prices or pricing structures. It would merely restore the longstanding deregulatory—as opposed to “no-regulatory” or “over-regulatory”—compact.

Fourth, the approach would establish meaningful boundaries and constraints to prevent regulatory overreach. The FCC would invoke only the few provisions necessary to achieve its limited but essential goals. Notably, these are the very same provisions (sections 201, 202, and 254, for example) that telephone and cable companies agree the FCC should invoke, albeit indirectly under an “ancillary authority” approach. The Commission would take steps to give providers and their investors confidence and certainty that this renunciation of regulatory overreach will not unravel while also giving consumers, small businesses, entrepreneurs and innovators the confidence and certainty they need and deserve. Since Congress gave the Commission forbearance authority 17 years ago, the Commission has never reversed or undone a forbearance decision.

Fifth, the approach is familiar and has worked well in an analogous context—wireless communications. In its approach to wireless communications, Congress mandated that the FCC subject wireless communications to the same Title II provisions generally applicable to telecommunications services while also directing that the FCC consider forbearing from the application of many of these provisions to the wireless marketplace. The Commission did significantly forbear, and the telecommunications industry has repeatedly and resoundingly lauded this approach as well-suited to an emerging technology and welcoming to investment and innovation. In short, the proposed approach is already tried and true.

Sixth, this approach would allow the Commission to move forward on broadband initiatives that are vital for global competitiveness and job creation, even as it explores with Congress and stakeholders the possibility of legislative clarification of the Communications Act. The Communications Act as amended in 1996 anticipated that the FCC would have an ongoing duty to protect consumers and promote competition and public safety in connection with broadband communications. Should Congressional leaders decide to take up legislation in the future to clarify the statute and the agency’s authority regarding broadband, the agency stands ready to be a resource to Congress as it considers any such legislative measures. In the interim, however, this approach would ensure that key initiatives to address pressing national challenges can move forward.

I will ask my Commission colleagues to join me soon in launching a public process, seeking comment on this narrow and tailored approach. The proceeding will seek comment regarding the Title I and Title II options discussed above, will seek input on important questions such as whether wired and wireless broadband access should be treated differently in this context, and will invite new ideas. As we move forward, my focus will be on the best method for restoring the shared understanding of FCC authority that existed before the Comcast decision and for putting in place a solid legal foundation for achieving the policy goals that benefit consumers and our economy in the most effective and least intrusive way.

The state of our economy and recent events are reminders both of the need to be cautious and the necessity of a regulatory backstop to protect the American people. I stand ready to explore all constructive ideas and expect those who engage with us to do so constructively as well. The issues presented by the Comcast decision are a test of whether Washington can work—whether we can avoid strawman arguments and the descent into hyperbole that too often substitute for genuine engagement.

The Comcast decision has created a serious problem. I call on all stakeholders to work with us productively to solve the problem the Comcast decision has created in order to ensure a solid legal foundation for protecting consumers, promoting innovation and job creation, and fostering a world-leading broadband infrastructure for all Americans.

A THIRD WAY LEGAL FRAMEWORK FOR ADDRESSING THE COMCAST DILEMMA

Austin Schlick, General Counsel—Federal Communications Commission—May 6, 2010

Chairman Genachowski has asked me to describe the legal thinking behind the narrow and tailored approach to broadband communications services that he introduced for public discussion today. It springs from a longstanding consensus about how the FCC should approach Internet access services; from a recent court decision that casts serious doubt on the FCC’s current strategy for implementing that con-

sensus; and from a belief that Congress's laws and the Supreme Court's decisions provide a way to overcome this new challenge.

The Policy Consensus. As the Chairman explains in his statement, general agreement has developed about the agency's light-touch role with respect to broadband communications. This bipartisan agreement spans the FCC Chairmen and Commissioners, Congress, and industry, and has three elements:

1. *The Commission does not regulate the Internet.* The policy of preserving the Internet as a generally unregulated, free-market forum for innovation, speech, education, and job creation finds expression in (among other provisions) section 230 of the Communications Act, which states Congress's conclusion that "[t]he Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation." (47 U.S.C. § 230(a)(4))

2. *Dial-up Internet access service (used by about 5 million American households essentially to "call" the Internet) is subject to the regulatory rules for telephone service.* This policy protects the 5.6 million American households that depend on ordinary telephone service to reach the Internet.

3. *For the broadband access services that a majority of on-line consumers use to reach the Internet, the Commission refrains from regulation when possible, but will step in when necessary to protect consumers and fair competition.* This balanced approach to broadband access services was expressed most clearly on September 23, 2005, when a unanimous Commission released two companion decisions addressing broadband Internet access service. The first decision that day, generally known as the *Wireline Broadband Order*, "established a minimal regulatory environment for wireline broadband Internet access services to benefit American consumers and promote innovative and efficient communications." (Para. 1) It reclassified telephone companies' Internet access offerings as indivisible "information services" subject only to potential regulation under the doctrine of ancillary authority. ("Ancillary authority" refers to the Commission's discretion under the statutory provisions that establish the agency (Title I of the Communications Act) to adopt measures that are "reasonably ancillary to the effective performance of the Commission's various responsibilities." *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1962).) The companion decision, known as the *Internet Policy Statement*, adopted principles for an open Internet and expressed confidence that the Commission had the "jurisdiction necessary to ensure that providers of telecommunications for Internet access . . . are operated in a neutral manner." (Para. 4) As recently as March 16 of this year, the current Commission—again unanimously—adopted a Joint Statement on Broadband reaffirming that "[e]very American should have a meaningful opportunity to benefit from the broadband communications era." (Para. 3)

These three basic principles reflect the Commission's commitment to a policy that promotes investment in the Internet and broadband technologies, and ensures basic protections for businesses and consumers when they use the on-ramps to the Internet.

The Comcast Case. A month ago, the United States Court of Appeals for the D.C. Circuit issued an opinion that raises serious questions about the Commission's ability to implement the consensus policy effectively, absent some responsive administrative action. That case is *Comcast v. FCC*, the so-called *Comcast/BitTorrent* case. The case began in 2007, when Internet users discovered that *Comcast* was secretly degrading its customers' lawful use of *BitTorrent* and other peer-to-peer applications. In 2008, the FCC issued an order finding *Comcast* in violation of Federal Internet policy as stated in various provisions of the Communications Act and prior Commission decisions.

The D.C. Circuit held that the Commission's 2008 order lacked a sufficient statutory basis, because it did not identify "any express statutory delegation of authority" for putting an end to *Comcast's* undisclosed interference with its own customers' communications. The narrow holding is that because the Commission, in 2002, classified cable modem offerings entirely as "information services" (a category not subject to any specific statutory rules, but only the agency's ancillary authority under Title I of the Act), it could not, in 2008, enforce Title II's nondiscrimination and consumer protection principles in the cable modem context. The underlying legal principle is that, when the Commission classified residential broadband services as solely and entirely information services despite their substantial transmission component, the Commission unintentionally went too far in limiting its ability to protect consumers and small businesses.

The opinion recognizes the Commission's continued ability to adopt rules concerning services Congress specifically addressed in the Communications Act—wireline and wireless telephony, broadcasting, and cable and satellite TV—and those rules may incidentally benefit the Internet. But, under *Comcast*, the FCC's 2002 classification decision greatly hampers its ability to accomplish a task the Commission unanimously endorsed in 2005: “ensur[ing] that broadband networks are widely deployed, open, affordable, and accessible to all consumers.” (*Internet Policy Statement*)

The Commission's Options. *Comcast* undermined only the particular legal foundation used in recent years to support the longstanding consensus regarding broadband policy, not the consensus itself. In particular, the case casts no doubt on the wisdom of the three-part framework that has encouraged the development of diverse and innovative Internet applications, content, and services, as well as faster and more widely available access connections. The Commission's focus is on putting the consensus approach back on a sound legal footing. The public debate surrounding the *Comcast* decision has focused on two principal options, but there is a third approach that may provide a more tailored and sustainable alternative.

1. Title I: Stay the Course

Some big cable and telephone companies suggest the agency should stick with the information service classification, try to adapt its policies to the new restrictions announced by the *Comcast* court, and see how it goes. This is a recipe for prolonged uncertainty. Any action the Commission might take in the broadband area—be it promoting universal service, requiring accurate and informative consumer disclosures, preserving free and open communications, ensuring usability by persons with disabilities, preventing misuse of customers' private information, or strengthening network defenses against cyberattacks—would be subject to challenge on jurisdictional grounds because the relevant provisions of the Communications Act would not specifically address broadband access services. Paradoxically, the FCC would be on safe legal ground only to the extent its actions regarding emerging broadband services were intended to affect traditional services like telephone and television.

Even if the Commission won every case, there would be implementation delays of months or years while legal challenges worked their way through the courts—eons in what the Ninth Circuit has called the “quicksilver technological environment” of broadband. (*AT&T Corp. v. City of Portland*, 216 F.3d 871, 876 (9th Cir. 2000)). The extended uncertainty would deprive investors, innovators, and consumers of needed clarity about the rules of the road. Because the stay-the-course proposal does not allow the Commission directly to promote broadband deployment and adoption or protect broadband competition and consumers, it would not support the consensus status quo that existed before *Comcast*.

2. Title II: Telephone-Style Regulation of Broadband Internet Services

A second option is to reclassify broadband Internet access services as telecommunications services and apply the full suite of provisions established in Title II of the Communications Act, many of which were developed decades ago for telephone networks. That approach would put the Commission on a strong jurisdictional footing in future broadband rulemakings and adjudications, because broadband Internet services would be governed directly by Title II. But this full Title II approach would trigger a detailed regulatory regime (comprising 48 sections of the United States Code) that the Commission has successfully refrained from applying to broadband Internet services. Although there would be clear rules of the road for broadband, those rules would be inconsistent with the current consensus approach of regulatory restraint.

3. A Third Way: Placing the Consensus Policy Framework on a Sound Legal Footing

There is a third legal path that fits better with the Commission's settled, deregulatory policy framework for broadband communications services. It begins at the Supreme Court. In *National Cable and Telecommunications Association v. Brand X Internet Services, Inc.*, a majority of the Justices deferred to the Commission, and permitted its information service classification of cable modem offerings, because the Communications Act “leaves Federal telecommunications policy in this technical and complex area to be set by the Commission.” Justice Scalia, joined by Justices Souter and Ginsburg, concluded in a strong dissent that the “computing functionality” and broadband transmission component of retail Internet access service *must be* acknowledged as “two separate things.” The former involves unregulated information services while the latter is a telecommunications service. The dissent therefore would have held that the Commission's information service classification of cable broadband Internet access service was an unreasonable and unlawful interpretation of the Communications Act.

As discussed in detail below, adopting Justice Scalia's bifurcated view of broadband Internet access service is entirely consistent with (although not compelled by) the *Brand X* majority opinion. This course would also sync up the Commission's legal approach with its policy of (i) keeping the Internet unregulated while (ii) exercising some supervision of access connections. The provisions of Title II would apply solely to the transmission component of broadband access service, while the information component would be subject to, at most, whatever ancillary jurisdiction may exist under Title I.

In addition to narrowing the applicability of Title II, the Scalia approach enables the Commission to use the powerful deregulatory tool Congress provided specifically for tailoring Title II's requirements to the Internet Age, and thereby establishing appropriately confined boundaries for regulation. When Congress amended the Communications Act in 1996, most consumers reached the Internet using dial-up service, subject then (as it is now) to Title II. Cable modem service was emerging, though, and telephone companies were beginning to offer DSL broadband connections for Internet access under Title II. Aware of the changing landscape, Congress gave the FCC authority and responsibility via section 10 of the Communications Act to "forbear" from applying telecommunications regulation, so that the new services are not subject to needlessly burdensome regulations. And in section 706 of the Telecommunications Act of 1996 (47 U.S.C. §1302), Congress directed the FCC to use its new forbearance power to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."

The upshot is that the Commission is able to tailor the requirements of Title II so that they conform precisely to the policy consensus for broadband transmission services. Specifically, the Commission could implement the consensus policy approach—and maintain substantively the same legal framework as under Title I—by forbearing from applying the vast majority of Title II's 48 provisions to broadband access services, making the classification change effective upon the completion of forbearance, and enforcing a small handful of remaining statutory requirements. As few as six provisions could do the job:

Sections 201, 202, and 208. These fundamental provisions collectively forbid unreasonable denials of service and other unjust or unreasonable practices, and allow the Commission to enforce the prohibition. Long before the *Comcast* decision, access providers supporting an information service classification made clear that they did not seek to avoid enforcement of these fair-dealing principles:

- In December 2000, Cox commented in the *Cable Modem* docket that "a Title I classification ensures that the Commission has ample ability and authority to implement rules to correct any market failures or other policy concerns about cable data services that might develop in the future."
- In May 2002, Verizon agreed in the *Wireline Broadband* proceeding that "classification of broadband under Title I [would not] lead to any erosion of the consumer protections provisions of the Communications Act."
- In July 2003, SBC (now AT&T) noted in the same docket that Title I classification of broadband Internet access services would allow the Commission "to intercede at some later point if necessary to protect consumers."

After *Comcast*, the commonsense consensus that there should not be unreasonable conduct by broadband access service providers remains. In the Commission's pending Open Internet Proceeding, for example, *Comcast* has urged "a standard based on 'unreasonable and anticompetitive discrimination.'" Sprint Nextel has commented that "[t]he unreasonable discrimination standard contained in Section 202(a) of the Act contains the very flexibility the Commission needs to distinguish desirable from improper discrimination." And AT&T has concurred that the "unreasonable discrimination" prohibition in section 202(a) "is both administrable and indispensable to the sound administration of the Nation's telecommunications laws."

Applying sections 201, 202, and 208 to broadband access service would hold broadband access providers to standards they agree should be met and would address the specific problem that sparked the case—secret interference with subscribers' lawful Internet transmissions. Applying a few other *Comcast* sections of Title II would allow the Commission to address other recognized issues as well.

Section 254. Section 254 requires the Commission to pursue policies that promote universal service goals including "[a]ccess to advanced telecommunications and information services . . . in all regions of the Nation." In the Joint Statement on Broadband issued earlier this year, the Commission called for reform of the universal service program to "emphasize the importance of broadband." The Title I/information services model used by the Commission actually undermines accomplishment of this goal, because universal service support is generally available only for

telecommunications services: The law defines “universal service” as “an evolving level of *telecommunications services* the Commission shall establish periodically” (emphasis added). Industry agrees this is a problem. AT&T (in a January 2010 white paper) and the cable industry (in a March 2010 letter) have both proposed untested theories they think might permit universal support for broadband under Title I. Recognizing broadband transmission as a separable telecommunications service would definitively solve the problem.

Section 222. Title II requires providers of telecommunications services to protect the confidential information they receive in the course of providing service. These protections are another part of the consensus policy framework for broadband access. A unanimous Commission addressed privacy in the 2005 *Wireline Broadband Order*, stating that “[c]onsumers’ privacy needs are no less important when consumers communicate over and use broadband Internet access than when they rely on [telephone] services” (para. 148), and that it had jurisdiction to enforce this norm (para. 146). As early as 1987, “long before Congress enacted section 222 of the Act, the Commission had recognized the need for privacy requirements associated with the provision of enhanced [*i.e.*, information] services” and established rules for telephone companies to protect “legitimate customer expectations of confidentiality” as well as other companies’ confidential business information. (*Id.* Para. 149 and n.447).

Section 255. Telecommunications service providers and providers of telecommunications equipment or customer premises equipment must make their services and equipment accessible to individuals with disabilities, unless not reasonably achievable. The *Wireline Broadband Order* addressed this requirement as well. Again, although the Commission was there adopting the Title I legal framework, it held fast to the Title II rule, promising to “exercise our Title I ancillary jurisdiction to ensure achievement of important policy goals of section 255.” (Para. 123) The Joint Statement on Broadband similarly provides that disabilities should not stand in the way of Americans’ access to broadband. (Para. 3)

The Wireless Experience. Although it would be new for broadband, this third way is a proven success for wireless communications. In 1993, Congress addressed the minimum safeguards necessary for then-emerging commercial mobile radio services (CMRS), such as cell phone service. Congress specified in a new section 332(c) of the Communications Act that Title II applies to CMRS, but the Commission may forbear from enforcing any provision other than the core requirements of sections 201, 202, and 208. This forbearance framework for wireless has been so successful that in 2001, Tom Tauke, Verizon’s Senior Vice President for Public Policy and External Affairs, told the House Judiciary Committee that “this approach produced what is arguably one of the greatest successes in this industry in the last twenty years—the growth of wireless services”—and it “will work” for wireline broadband as well.

(Aside from this statutory history, wireless broadband may be distinguishable from cable and telephone company broadband access services on account of differences in the technical and consumer aspects of wireless broadband service, as well as the Commission’s direct jurisdiction over licensing of wireless services under Title III of the Communications Act. On the other hand, telecommunications classification of a distinct transmission component within wireless broadband service might be essential to supporting deployment and wider adoption of wireless broadband under section 254.)

A Stronger Legal Foundation. Applying a few foundational sections of Title II to the transmission component of broadband Internet access service would establish a strengthened legal basis on which to implement the consensus policy for broadband access. If broadband access service is found to contain a separate telecommunications service, as Justices Scalia, Souter, and Ginsburg believed was the only plausible view, then the Commission may protect broadband consumers by grounding its authority in Title II directly as well as in Title I as ancillary authority. This belt-and-suspenders approach—relying on direct statutory authority in addition to ancillary authority—puts the Commission in an inherently more secure position than the Title I approach, which allows only assertions of ancillary authority.

The legal issue surrounding the third way is not whether the Commission can sufficiently protect consumers in a particular context, as it is under the information service classification and the *Comcast* opinion, but whether the Commission’s decision to adopt Justice Scalia’s classification of broadband access would be permissible. *Brand X* all but answers that question.

Brand X involved a challenge by independent Internet service providers (ISPs), long distance carriers, consumer and public interest groups, and states to the *Cable Modem Declaratory Ruling*. In that 2002 decision, the Commission had concluded that cable modem service then was being provided as “a single, integrated service

that enables the subscriber to utilize Internet access service,” with a telecommunications component that was not “separable from the data processing capabilities of the service.” The Commission held that cable modem service “does not include an offering of telecommunications service to subscribers” and, accordingly, no portion of it triggered Title II duties or protections. (*Cable Modem Declaratory Ruling* paras. 38–39)

When the case was briefed at the Supreme Court, all the parties agreed with the Commission that cable modem service either is or includes an information service. The Court therefore addressed whether the Commission permissibly applied the Communications Act in choosing to conclude that cable modem service providers offer only an information service, rather than a telecommunications service and an information service. The Court’s opinion unequivocally reaffirms the principle that courts must defer to the implementing agency’s reasonable interpretation of an ambiguous statute. Justice Thomas, writing for the six-Justice majority, recited that:

In *Chevron* [U.S.A., Inc. v. *Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984)], this Court held that ambiguities in statutes within an agency’s jurisdiction to administer are delegations of authority to the agency to fill the statutory gap in reasonable fashion. Filling these gaps, the Court explained, involves difficult policy choices that agencies are better equipped to make than courts. 467 U.S., at 865–866. If a statute is ambiguous, and if the implementing agency’s construction is reasonable, *Chevron* requires a Federal court to accept the agency’s construction of the statute, even if the agency’s reading differs from what the court believes is the best statutory interpretation.

(545 U.S. at 980) Furthermore, “[a]n initial agency interpretation is not instantly carved in stone. On the contrary, the agency. . . must consider varying interpretations and the wisdom of its policy on a continuing basis.” (*Id.* at 981 (quoting *Chevron*))

Turning to the Communications Act, Justice Thomas wrote:

The entire question is whether the products here are functionally integrated (like the components of a car) or functionally separate (like pets and leashes). That question turns not on the language of the Act, but on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance. . . . [T]he statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering. This leaves Federal telecommunications policy in this technical and complex area to be set by the Commission.

(*Id.* at 991) “The questions the Commission resolved in the order under review,” Justice Thomas summed up, “involve a subject matter [that] is technical, complex, and dynamic. The Commission is in a far better position to address these questions than we are.” (*Id.* at 1002–03 (internal citation and quotation marks omitted))

Justice Breyer concurred with Justice Thomas, stating that he “believe[d] that the Federal Communications Commission’s decision falls within the scope of its statutorily delegated authority,” although “perhaps just barely.” (*Id.* at 1003)

In dissent, Justice Scalia, joined by Justices Souter and Ginsburg, expressed the view that the Commission had adopted “an implausible reading of the statute[,] . . . thus exceed[ing] the authority given it by Congress.” (*Id.* at 1005) Justice Scalia reasoned that “the telecommunications component of cable-modem service retains such ample independent identity that it must be regarded as being on offer—especially when seen from the perspective of the consumer or end user.” (*Id.* at 1008)

These opinions collectively afford the Commission great flexibility to adjust its approach going forward—particularly by adopting an approach like the one suggested by Justice Scalia. The *Brand X* case put six Justices on record as saying that classification of cable modem service is a call for the FCC to make and that “the Commission is free within the limits of reasoned interpretation to change course if it adequately justifies the change” (*id.* at 1001); one of the six “just barely” accepted the FCC’s information service approach; and the three remaining Justices expressed the view that the agency must classify a separable telecommunications service within cable modem offerings. As many as all nine Justices, it seems, might have upheld a Commission decision along the lines Justice Scalia suggested. In any event, the lawfulness of a limited reclassification could be confirmed relatively quickly in a single court case, avoiding the prolonged and uncertain case-by-case testing that would follow from continuing down the Title I road.

An agency reassessment of the classification issue would have to include consideration of the policy impact of the *Comcast* case, as well as a fresh look at the technical characteristics and market factors that led Justice Scalia to believe there is a divisible telecommunications service within broadband Internet access. The fac-

tual inquiry would include, for instance, examination of how broadband access providers market their services, how consumers perceive those services, and whether component features of broadband Internet access such as e-mail and security functions are today inextricably intertwined with the transmission component. If, after studying such issues, the Commission reasonably identified a separate transmission component within broadband Internet access service, which is (or should be) offered to the public, then the consensus policy framework for broadband access would rest on both the Commission's direct authority under Title II and its ancillary authority arising from the newly recognized direct authority. This necessarily would allow a stronger legal presentation than the standalone ancillary jurisdiction arguments that the Commission made unsuccessfully in *Comcast*.

No New Unbundling Authority. In the wake of *Comcast*, representatives of the incumbent telephone companies have sometimes suggested that any deviation from the current information service classification of broadband Internet access would open the door to new network unbundling authority under section 251(c) of the Communications Act. That is not a credible concern. An incumbent telephone company's network unbundling obligations under section 251 do not depend on the classification of the services the incumbent company is providing. The Commission's adoption of its current information service classification accordingly did not lessen unbundling obligations or authority under section 251. In paragraph 127 of the 2005 *Wireline Broadband Order* (the order that extended the information-service classification to telephone companies' broadband access) the Commission specifically explained that "nothing in this Order changes a requesting telecommunications carrier's [unbundling] rights under section 251 and our implementing rules."

Nor would identifying a separate telecommunications component of broadband access service afford competing ISPs any new rights to the incumbents' networks on a wholesale basis under the old *Computer Inquiry* rules. The Commission "eliminate[d]" those requirements for wireline broadband access providers in 2005, no matter whether they provide a Title I or Title II access service. (*Id.* para. 80).

As for cable companies, there is currently an open rulemaking proceeding—begun by the Powell Commission at the same time it adopted the information services theory—that asks "whether it is necessary or appropriate at this time to require that cable operators provide unaffiliated ISPs with the right to access cable modem service customers directly." (*Cable Modem Order* para. 72) The Commission has not taken any action to implement mandatory access to cable broadband networks, and a consensus seems to have developed that it should not be ordered. Should the Commission wish to formally confirm that consensus, it could close the 2002 proceeding.

No Rate Regulation. Nor would identification of a telecommunications service within broadband Internet access be a harbinger of monopoly-era price regulation, as some have suggested. Congress made mobile services subject to Title II in 1993, but under the model established for wireless services the Commission rejected rate setting. A wireless carrier's success, the Commission explained, "should be driven by technological innovation, service quality, competition-based pricing decisions, and responsiveness to consumer needs—and not by strategies in the regulatory arena." (*Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, 9 FCC Rcd 1411, 1420 (1994)) There is no reason to anticipate the Commission would reach a different conclusion about prices or pricing structures for broadband access. Indeed, more than 800 incumbent telephone companies voluntarily provide broadband access as a Title II telecommunications service today, and while most have voluntary tariffs, the Commission expressly does not require tariffing. (*Wireline Broadband Order* para. 90)

Difficult To Overturn. Would a forbearance-based approach provide greater or lesser protection against future over-regulation of broadband access than today's information service classification? Although neither approach would, could, or should absolutely prevent the Commission from adjusting its future policies in light of changed circumstances, the forbearance approach should provide greater, not lesser, protection against excessive regulation than the Title I approach.

As already discussed, the Commission's information service approach was highly discretionary and, the Supreme Court instructed in *Brand X*, subject to review "on a continuing basis." For both reasons, the current information service classification is inherently insecure. Justice Scalia made this point in *Brand X*. (545 U.S. at 1013) Forbearance determinations for broadband access transmission would be more difficult than the information service classification to reverse. That is because Section 10 mandates forbearance if:

- (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection

with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory;

(2) enforcement of such regulation or provision is not necessary for the protection of consumers; and

(3) forbearance from applying such provision or regulation is consistent with the public interest.

The initial determination to forbear from regulating broadband access would be straightforward under this test. Applying sections 201, 202, and 208 would directly address the first prong of the test. As for the second and third prongs (protecting consumers and consistency with the public interest), the critical fact is that Title II rules *currently do not apply* to broadband access service. Forbearing would preserve the status quo, not change it. To satisfy the statutory forbearance criteria, therefore, the Commission would only have to conclude that consumers and the public interest are adequately protected today, without application of the Title II provision at issue. Consistent with the 2005 classification order, this analysis could be undertaken on a nationwide rather than market-by-market basis. (See *Wireline Broadband Order* paras. 91–93)

Unforbearing (that is, imposing Title II rules that have not been applied to broadband access services in many years, if ever) would be a different matter entirely. In order to overturn a grant of forbearance, the Commission would first have to compile substantial record evidence that the circumstances it previously identified as supporting forbearance had changed, and then survive judicial review under the Administrative Procedure Act's arbitrary-and-capricious standard. The difficulty of overcoming section 10's deregulatory mandate and a prior agency finding in favor of forbearance is illustrated by the fact that the FCC has never reversed a forbearance determination made under section 10, nor one made for wireless under the similar criteria of section 332(c)(1).

The Commission could further reinforce the certainty of forbearance in the text of any implementing order. For instance, the Commission might provide that in the event of an adverse court decision on forbearance the old unitary information service classification would spring back, or that there would be some other response by the Commission that is more consistent with the pre-*Comcast* status quo than full Title II regulation.

No Inconsistent State Regulation. Excessive state regulation is as threatening to the Internet as excessive Federal regulation. The Commission, however, has broad authority to preempt inconsistent state requirements when they frustrate valid Federal policies. Under today's information service classification, the Commission's general policy of not regulating information services means that states have little ability to regulate broadband Internet access services. The Commission has similar authority to preempt state regulation of interstate telecommunications services when the state regulation is inconsistent with Federal regulation (or deregulation) and the state cannot limit the effect of its regulation to an intrastate portion of the service. Furthermore, section 10(e) of the Act specifically provides that no state may apply a provision of Title II that the Commission has nullified through forbearance. For these reasons, broadband access providers would have at least the same protection against unjustified state regulation as they enjoy today. Indeed, access providers arguably would have more protection under a tailored forbearance approach than under the Title I approach; because a permissible exercise of Federal jurisdiction can effectively limit state jurisdiction, the *Comcast* decision's narrowing of Federal ancillary jurisdiction might have the corollary effect of expanding the permissible scope of state regulation.

No Red Tape or Slippery Slopes. Finally, a third-way approach modeled on the successful framework used for wireless services would have to be administrable and lead to sensible results in practice. Administration should be a non-issue. Access providers would be free to define and redefine their transmission services to best meet operational and customer needs, without any need to file tariffs (given forbearance from the rate-setting provisions of the Act). The fact-specific inquiry involved in a tailored forbearance approach, moreover, would address only facilities-based providers that offer access transmission to the public at large. Providers of Internet content, applications, and services would remain unregulated under the first prong of the Commission's consensus framework, while providers of negotiated ("private") carriage services—on the Internet or elsewhere—are not telecommunications service providers subject to Title II. (See Communications Act section 3(46) ("The term 'telecommunications service' means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.") A narrow and tailored forbearance approach to solving the *Comcast* problem appears workable in this respect as well.

Whether, all things considered, the legal response to *Comcast* sketched out here is the best one for the Commission to adopt would be for the five FCC Commissioners to answer after an opportunity for public comment and private study. In my judgment, it's a question worth asking.

